



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appellants: Chomik et al.
Serial No.: 09/639,508
Filed: August 16, 2000
For: VENT DISK FOR BABY BOTTLE AND METHOD
AND APPARATUS FOR MANUFACTURE THEREOF
Examiner: Dexter, Clark F.
Art Unit: 3724
Customer Number: 67519
Confirmation No.: 3194
Appeal No.: 2007-0792

Attorney Docket No.: 460.1891USV

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Commissioner for Patents
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REQUEST FOR REHEARING OF DECISION
BY THE BOARD OF PATENT APPEALS AND INTERFERENCES

Dear Sir:

This Request for a Rehearing of a decision of the Board of Patent Appeals and Interferences is filed under 35 U.S.C. § 134 and in accordance with the provisions of 37

C.F.R. § 1.197(b), and MPEP 1214.03. The claims on appeal and which are the subject of the Decision and this Request are set forth in the Claims Appendix.

I. INTRODUCTION

This request for a Rehearing is made from the Decision of the Board, mailed June 14, 2007 (hereinafter “Decision”).

II. RELATED APPEALS AND INTERFERENCES

No other appeals or interferences are known to Appellants, Appellants’ Attorney or the owner/assignee of the application (Playtex Products, Inc.), which will directly affect or be directly affected by or have a bearing on the Board’s Decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 14 through 16 are the subject of the appeal Decision and this Request for Rehearing. Claims 1 through 13 have been cancelled. Claims 17, 21 through 23 and 27 through 40 have been withdrawn.

Claims 18 through 20 and 24 through 26 are objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims.

Appellants have stated that claims 14-16 stand or fall together.

Claims 14 through 16 were rejected in the Final Action under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,499,729 to Greenwood (hereinafter "Greenwood"), which is attached to the Appeal Brief at Appendix B.

IV. STATUS OF AMENDMENTS

There were no amendments made in response to the Final Action. The arguments in this Request for Rehearing are based upon claims 14-16 as set forth in the Claims Appendix hereof.

V. SUMMARY OF THE INVENTION

Appellants' invention relates to a method of manufacturing vent discs that alleviates the vacuum created in containers, such as infant feeding bottles, during feeding. (p. 1, ll. 16-20). This vacuum can make feeding more difficult and can cause a nipple to collapse, if so equipped. (p. 1, ll.5-10). The vent discs made according to

Appellants' invention allows air to flow into the bottle during feeding to alleviate the vacuum, while preventing leakage out through the vent discs. (p. 2, ll. 1-14).

Generally, Appellants' invention provides a method of making or manufacturing vent discs 10 that efficiently allow air into the container to alleviate the vacuum and prevent leakage out of the bottle. (p. 2, ll. 1-14). The vent discs 10 are formed with a plurality of resealable perforations 18, depressions 20 through an elastomeric, concavely curved domed portion 12 of the vent disc 10. (p. 6, ll. 4-8 and 16-18). This method comprises forming the plurality of perforations 18, depressions 20 through the domed portion 12 such that each of the centerlines of the perforations 18, depressions 20 are coincident to a radius that forms the concave curvature of the domed portion 12. (p. 6, ll. 4-8 and 20-24).

Appellants' invention provides for forming the plurality of perforations 18, depressions 20 with at least two different diameters through the domed portion 12. (p. 6, ll. 14-16; p. 7, ll. 32-33). FIGS. 2, 2A, 2B and 9, show one such example where the plurality of perforations 18 are formed by an upwardly extending depression 20 in the undersurface of the domed portion 12 and another perforation 18 through the residual portion 24 above the depression 20. (p. 6, ll. 4-14; p. 7, l. 34; p. 8, ll. 1-4).

Appellants' invention also provides for forming depressions 20 such that the centerlines of the depressions 20 are coincident with the radius that forms the concave curvature of the dome portion 12. (p. 6, ll. 20-22). In such an embodiment, the

centerlines of the perforations 18 through the residual portions 24 are formed coincident to the corresponding centerlines of the depressions 20, as shown in Fig.9. (p. 6, ll. 22-24).

The depressions 20 are preferably dish-shaped, recessed upwardly concave, and circular or hemispherical in shape but can also be conical and cylindrical, among other shapes. (p. 6, ll. 14-16; p. 7, ll. 32-33). The perforations 18 are resealable apertures, an preferably are elongate slits but could be pin holes. (p. 6, ll. 4-6; p. 10, ll 4-7). If slits 18 are formed in the vent disc 10, the slits 18 preferably have a slit width W (as shown in FIG. 2B) between about 0.040 to about 0.080 inches, more preferably from about 0.058 inches to about 0.062 inches, and most preferably about 0.060 inches. (p. 7, ll. 6-10).

Shown in FIGS. 3 through 4 and 5 through 8 are two non-limited examples of piercing assemblies 50, 500 that can form the vent discs 10 as described above. (p. 9, ll. 32-33; p. 10, ll. 18-21; p. 12, ll. 17-19). Assembly 50 has piercing elements 30 with central axes that coincide with the radius that forms the concave curvature of the domed portion 12. (p. 10, ll. 25-29; p. 11, ll. 23-20). Assembly 500 uses a vacuum to flatten the domed portion 12 and then pierces the vent disc 10 with piercing elements 30 that are mounted axially, vertically and parallel to each other on the punch mounting plate 120 so that when the vent disc returns to its dome shaped curvature, the perforations coincide with the radius that forms the concave curvature of the domed portion. (p. 14, ll. 3-5 and 19-23; p. 15, ll. 12-16).

VI. SUMMARY OF CLAIMED SUBJECT MATTER

Claim 14 provides the subject matter of a method of forming a plurality of apertures, referred to in the application by reference numerals 18 and/or 20, in a concavely curved domed portion of a vent disc, referred to in the application by reference numeral 10 and/or 12, the plurality of apertures each having centerlines, which includes forming the plurality of apertures with each of the centerlines coincident to a radius that forms a concave curvature of the domed portion. (p. 6, ll. 12-14). The plurality of apertures have at least two different diameters through the domed portion. (p. 6, ll. 14-16; p. 7, ll. 32-33). The plurality of apertures are resealable. (p. 6, ll. 4-6). The domed portion is elastomeric. (p. 6, ll. 16-17).

Claim 15 provides the subject matter of the method of claim 14, and further includes forming a portion of each of the plurality of apertures with a hemispherical shape. (p. 6, ll. 14-16).

Claim 16 provides the subject matter of a method of forming a plurality of perforations, referred to in the application by reference numeral 18, in a concavely curved domed portion of a vent disc, referred to in the application by reference numeral 10 and/or 12, which includes forming a plurality of upwardly extending depressions, referred to in the application by reference numeral 20, in an undersurface of the domed portion while leaving a residual, referred to in the application by reference numeral 24, of the domed portion above the plurality of depressions, the plurality of depressions each having a centerline, each of the centerlines being coincident with a radius that forms a concave curvature of the domed portion, and forming a plurality of perforations through

the residual. (p. 6, ll. 12-24; p. 7, l. 23-p. 8, l. 4). The plurality of perforations are resealable and each have a centerline where each of the centerlines of the plurality of perforations is formed coincident to a corresponding centerline of one of the plurality of depressions. (p. 6, ll. 20-24). The domed portion is elastomeric. (p. 6, ll. 16-17).

VII. POINTS BELIEVED TO BE MISAPPREHENDED OR OVERLOOKED BY THE BOARD

Appellants respectfully request rehearing of the Decision on the following points:

- The Board's construction of the meaning of the phrase "centerlines coincident to a radius" and of the term "coincident."
- The Board's affirmance of the Final Rejection of claims 14-16 for anticipation by the Greenwood patent under 35 U.S.C. § 102(b).

A. The Board's construction of the meaning of the phrase "centerlines coincident to a radius" and of the term "coincident is not a reasonable interpretation."

The Board's construction of the meaning of the phrase "centerlines coincident to a radius" and of the term "coincident" is not a reasonable interpretation. Among other things, it overlooks or is not based on enough or all of the pertinent information, it contradicts intrinsic and extrinsic evidence, it is too broad and it is unfair to Appellants.

1. The construction is not reasonable because it overlooks or is not based on enough or all of the pertinent information.
 - a. The pertinent information includes the claims, the specification, the prosecution file history and a dictionary.
 - b. Case law: In construing the meaning and scope of a claim, the words will be given their ordinary and customary meaning in normal usage in the field of the invention by persons of ordinary skill in the art. Phillips v. AWH Corp., 75 USPQ2d 1321, at 1326 (Fed. Cir. 2005). (A copy of Phillips is attached as Exhibit I). The court looks to those sources available to the public that show what a person of skill in the art would have understood the disputed claim language to mean. Those sources include the words themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art. Phillips, at 1327, citing Innova/Pure Water Inc. v.. Safari Water Filtration Sys. Inc., 72 USPQ2d 1001 (Fed. Cir. 2004). In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent, and claim construction in such cases involves little more than the application of widely accepted meaning of commonly understood words. In such circumstances, general purpose dictionaries may be helpful. Phillips, supra, at 1327.

The specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term. Phillips, Id., citing Vitronics, 39 USPQ 2d 1573 Fed. Cir. 1996). The CAFC has held that a court should also consider the patent's prosecution history, if it is in evidence.

Phillips, at 1329, citing Markman, 52 F.3rd at 980. The best source for understanding a technical term is the specification from which it arose, informed as needed by the prosecution history. Phillips, at 1328, citing Multiform Dessicants, 133 F.3rd, at 1478. Like the specification, the prosecution history provides evidence of how the PTO and the inventor understood the patent. Phillips, at 1329. The prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention. Phillips, Id.

Although the CAFC has emphasized the importance of intrinsic evidence in claim construction, it has also authorized district courts to rely on extrinsic evidence, which consists of evidence external to the patent and prosecution history, inventor testimony and dictionaries. Phillips, citing Markman, at 52 F.3rd at 980. The CAFC notes that it has observed that dictionaries can be useful in claim construction. Phillips, Id. Because dictionaries, and especially technical dictionaries, endeavor to collect the accepted meanings of terms used in various fields of science and technology, those resources have been properly recognized as among the many tools that can assist the court in determining the meaning of particular terminology to those of skill in the art of the invention. Phillips, Id., In the Phillips case, in reviewing the use of dictionaries by a District Court in the Texas Digital case, The CAFC stated it does not intend to preclude the appropriate use of dictionaries. Dictionaries or comparable sources are often useful to assist in understanding the commonly understood meaning of words and have been used both by our court and the Supreme Court in claim interpretation. Phillips, Id., at 1333.

c. The Decision states that the Board considered the claims on appeal, the Final Rejection, the Appeal Brief, the Examiner's Answer, and the Reply Brief, and has studied Applicant's Specification and Drawings, and the whole of the Greenwood Patent, No. 5,499,792. (Dec. pp. 3, 4). However, with respect to construing the phrase "centerlines coincident to a radius" and the term "coincident", the Decision states that the Specification does not explicitly define the term "coincident", and therefore it is necessary to interpret the phrase "centerlines coincident to a radius" based on the claim language itself and the teaching of the Specification as a whole. (Dec. p. 6).

However, the Board does not indicate what in the claims and teaching of the specification as a whole it relied on to reach its construction. Rather, the construction appears to have been based with an aim to read on Figure 17 of the Greenwood patent. (Dec. pp. 6, 7).

d. The Decision states that "[C]enterlines coincident to a radius", construed according to its broadest reasonable interpretation in light of the specification, means:

i. "the center lines are aligned with a corresponding radius extension of the domed portion of the disc."(emphasis added). (Dec. p. 6).

Appellants agree with this portion of the construction, provided the words "aligned with" have the dictionary meaning 1. to arrange in a straight line; or 5. to fall or come into line; to be in line (Random House Dictionary of the English Language, the Unabridged Edition, © 1966), (Attached as Exhibit IV), and provided "align" does not

include a meaning that would encompass intersecting or parallel lines in or through an aperture (such as those seen in Appellants' enlarged view of Figure 17 (Appendix E here and of the Appeal Brief)) or intersecting or parallel lines out of the aperture. To allow the latter meanings would not be reasonable in light of the specification, the Declarations of the inventors, or the ordinary and customary meaning of "coincident".

ii. The Decision next states: "That means an extension of the radius drawn to an aperture would fit entirely within the aperture." (Dec. p. 6)

Applicants disagree with and request reconsideration and modification of this second sentence so that it would read "That means an aligned extension of the radius of curvature of the concave dome drawn to an aperture would align entirely with the centerline of the aperture, (provided "aligned" and "align" are understood to not encompass intersecting or parallel lines, as mentioned above).

iii. The Decision next states "A broader interpretation would not be meaningful as any centerline through the aperture would necessarily intersect a radius extending to the aperture."

Applicants disagree with this (third) sentence and request reconsideration and deletion of the sentence, or modification of the sentence to read: "A broader interpretation would not be meaningful, i.e. would not be needed, since the definition would exclude any centerline through the aperture which would intersect or be parallel to a radius extending to the centerline of the aperture."

e. Having construed “coincident”, the Decision next states:

“Given the broadest reasonable interpretation of the critical phrase, the example of one of the plurality of apertures in the dome configured diaphragm member depicted in Greenwood’s Figure 17 reasonably appears to be identical to one of the plurality of apertures in the curved domed portion of a vent disk within the scope of Applicants’ claims. Greenwood’s Figure 17 depicts an aperture that reasonably appears to contain the radius of curvature of the domed portion of the disk throughout its thickness. The Decision continues with “While there are no specific geometries stated for Figure 17, the Drawing nevertheless reasonably appears to describe an aperture with a centerline”coincident to a radius that forms a concave curvature of said domed portion.” (emphasis added)

f. It is clear from the above that the Board has construed the broadest construction of the phrase “centerlines coincident to a radius’ and “coincident” solely or mainly based on Greenwood’s Figure 17, and on what reasonably appears identical to, or what it reasonably appears to contain or describe from one Figure, 17, of Greenwood. Importantly, the Decision does not discuss what it was in the most pertinent information for claim construction, Appellants’ claims and specification as a whole, that the Board relied on to determine what one of ordinary skill in the art would understand as to what the phrase or term meant.

g. Further, and importantly, in arriving at its construction, it appears that the Board overlooked pertinent portions of the prosecution file history.

The following references to or excerpts from the prosecution history sworn Declarations of the inventors, Messrs. Manganiello and Chomik, show what the respective inventors thought their invention was and what the phrase “centerlines coincident to a radius’ and the term “coincident” meant. (The Declarations are attached as Exhibits II and III; Appendix F of App. Brief). See for example:

In the Declaration of Mr. Manganiello (underlines are emphasis added), he states:

i. Of about 1000 domed vent discs, each having 36 domed depressions, provided by Mr Greenwood, he said the residual material of the vent discs above some of the depressions was punctured through and that the puncture holes were made one at a time by hand using a push pin. (p. 2, para. 11).

ii. At no time did Mr. Greenwood disclose or suggest to me or Playtex that the puncture holes should be perpendicular to the surface to be pierced, or, along or coincident with radii that form the curvature of the domed portion of the discs. (p. 3, para. 12);

iii. At no time did Mr. Greenwood disclose or suggest to me or Playtex that the centerlines of the depressions were or were to be coincident with radii that form the dome curvature of the discs, or that the puncture holes or perforations extend or should extend along the centerlines of the depressions. (p. 3, para. 13).

iii’. Playtex obtained domed vent discs with domed depressions from Greenwood’s manufacturer. Playtex tried puncturing the residuals above each depression by hand with a push pin and found that the punctured discs did not perform satisfactorily. They sometimes leaked due to the puncture holes. (p.4, para. 19). (See also, p. 4, para. 20)

iv. The perforation shown in fig. 17 does not extend along radius that forms the curvature of the domed portion of the vent disc. (p.5, para. 26).

(Chomik, p.9, para. 33). (Chomik hereinafter sometimes being referred to as "Chk").

v. In Fig. 17, the line representing the perforation is on an angle (not perpendicular) to the inner surface of the residual of the depression that is to be pierced, and it does not appear to extend along radii that form the curvature of the domed portion of the vent disc. (p. 6, para. 27). (Chk, p. 9, para. 34).

vi. With regard to Fig. 17, the Office Action states that perforations 73 and 74 are inclined at an angle with respect to the vertical of vent disc 72. Assuming the Examiner means that the perforation line is at an angle to the vertical axis through the bottle and through the vent disc, this does not necessarily or without doubt mean that the perforation line is perpendicular to the inner surface of the residual to be pierced, or that the line is along radii that form the curvature of the domed portion of the vent disc. (p.6, para. 28). (Chk, p. 9, para. 35).

vii. The Office Action states that line or perforation 73 bisects perforation 74 in two, I disagree. First, 74 refers to a recess not a perforation. Second, while the point at which the perforation enters the residual may bisect the diameter of the depression, that does not necessarily mean that perforation line 73 is perpendicular to the surface of the residual to be pierced, or is on or coincident with the radius that forms the curvature of the dome of the vent disc. (p. 6, para. 29). (Chk, p.10, para. 36)

viii. The Office Action states that Fig. 17 is drawn such that line 73 has minimal length in the residual area which would indicate that both of the

perforations are perpendicular to the surface to be pierced, and consequently, that the plurality of perforations extend along radii that form the curvature of the domed portion. Again, I disagree. Line 73, is not drawn perpendicular . Therefore, line 73 does not have minimal length, and one cannot conclude that the plurality of perforations extend along radii that form the curvature of the domed portion. (p.7, para. 30). (Chk p.10, para. 37)

ix. Fig. 17 is a sectional view taken through a single diaphragm aperture in the diaphragm of Fig. 19. (Column 3, lines 21-23). Since Fig. 17 shows only one aperture , one cannot tell whether each recess 74 is perforated, which aperture of Fig. 15 is sectioned, or from which direction the reader is viewing the section. For these reasons, one cannot say necessarily or without doubt that Fig. 17 teaches the invention claimed in the Application. (p.7, para. 31) (Chk p.10, para.38).

x. The patent discloses that in Fig. 17, aperture 73 is a point (Column 8, lines 40-41) formed by a straight pin puncture (Column 8, lines 57-59). (p. 7, para. 32)

xi. Because vent discs perforated by hand with push pins as suggested by an inventor of the Greenwood patent sometimes leaked and sometimes did not vent properly, such vent discs could not be commercialized. (p. 8, para. 34).

xii. The vent disc invention recited in the claims of the Application is a commercial success. (p. 8, para. 35).

In addition, or in confirmation of the Declaration of Mr. Manganiello, the Declaration of Mr. Chomik states for example that :

i. When I stated on the Project, all of the punctured vent discs at Playtex had puncture holes made by hand with a draftsman's compass or a push pin. (p.3, para.13).

ii. I used a comparator to examine hand-made puncture holes through vent discs that Playtex had on hand. I found that the puncture holes were randomly formed. They were random in terms of point of entry, angle, and contact/seal surface area. The puncture holes entered the residual material at various points on the interior surface of the domed depressions and the puncture holes were disposed at various angles through the residuals. The puncture holes did not form good seals and they sometimes leaked. (pp. 3, 4, para. 15).

iii. To eliminate the randomness of the puncture holes, I decided that the perforations, preferably slits, should be formed automatically so that they would be substantially uniformly or identically and consistently formed through the vent disc. (p. 4, para. 17).

iv. I reviewed a drawing that was made by a Playtex employee, Paul Thom. He made the drawing upon the instructions of Mr. Manganiello. (A copy of the drawing is attached hereto, and in App. Brief, as Exhibit A). The drawing shows a vertical section through a domed vent disc having dimples or depressions extending upwardly into the domed central panel of the vent disc. The drawing shows that the axes or centerlines of the depressions radiate from the center of the sphere of the domed portion of the vent disc. Thus, the drawing shows that the center lines of the depressions are coincident with the radii that form the curvature of domed central panel of the vent disc. The drawing also shows an enlarged vertical section through a portion

of a vent disc having a depression therein and shows a line drawn through the center of the depression and through the residual of vent disc material above the depression. Upon observing the drawing, I had the idea to form the perforations automatically and normal, i.e., perpendicular, to the surface of the vent disc to be pierced, or, along radii that form the curvature of the domed portion of the disc, or along the center lines of the depressions, which center lines are along radii that form the curvature of the domed central panel as disclosed and claimed in the Application. I decided that in order to have a vent disc that could be commercial and to be able to produce commercial vent disc, I had to eliminate the randomness of the perforations. I realized that to do that, the perforations should be formed as stated above, i.e., in accordance with my idea, automatically, consistently and substantially identically, preferably as slits formed by blades having tips as described in paragraph 16 herein. (p. 5, para. 18)

v. I then developed the apparatus and method disclosed and claimed in the Application. I started with a hand operated bench model apparatus. The domed central panel area of the vent discs had domed depressions therein as shown in the drawing of Mr. Thom. With the bench model, the domed central panel areas of the vent discs were flattened and the residuals of the domed depressions of the flattened vent discs were pierced. The perforations were made along the radii and center lines, as described in paragraph 18 above. (p. 6, para. 19)

vi. I tested the vent discs that were pierced as described in paragraph 19 above. (p. 6, para. 20)

vii. The comparative tests showed that improved, optimum air venting and no leakage occurred with the perforations made with the bench model apparatus according to paragraph 19. (p. 6, para. 21)

viii. Since the testing of the vent discs that were pierced randomly by hand with a compass or push-pin and that had puncture holes at various angles did not vent as well as the vent discs that were perforated according to paragraph 19 hereof, I determined that when the plurality of perforations were at an angle, even a slight angle, from perpendicular to the surface to be pierced, venting would be over longer (not the shortest) paths and would create a greater propensity for nipple collapse. I concluded therefore that with the longer paths, venting would be negatively affected. Since a bottle nipple can only withstand a limited amount of negative pressure, a plurality of perforation lines at an angle perpendicular to the surface to be pierced, or to the radii or the center lines coincident with the radii, would or could significantly deleteriously affect the venting performance of the vent disc. (p. 7, para. 24)

ix. At no time did Mr. Greenwood disclose or suggest to me or Playtex that the puncture holes or perforations through the residuals of the vent discs should be perpendicular to the surface to be pierced, or along or coincident with radii that form the curvature of the domed central panel of the discs, or that the center lines of the depressions were or were to be coincident with radii that form the domed curvature of the discs, or that the perforations should extend along the center lines of the depressions. (p. 8, para. 25).

h. The underlined portions of the sworn Declarations show to a person of skill in the art that the inventors clearly explained what they meant by the phrase “centerlines coincident with a radius” and by the term “coincident. Particularly, the Declarations show that they clearly did not intend to cover and definitely excluded from the meaning of “coincident,” centerlines that are at an angle, even at a slight angle, to the radius that formed the aperture. See for example, the Declaration of Chomik, at paragraphs iv, viii, and iv. Thus, the Board’s construction contradicts and is inconsistent with the intrinsic evidence, namely, the Declarations of the inventor.

i. Yet further, the Board apparently did not refer to a dictionary as a source to consider and help understand what the ordinary and customary meaning of the term “coincident” would be to a person of ordinary skill in the art at a time prior to the filing date of the subject application. Although the Board is not legally required to look to a dictionary, it is clear that dictionaries can be useful in claim construction and the CAFC has stated that they are often useful to assist in understanding the commonly understood meaning of words and have been used both by our court and the Supreme Court in claim interpretation. Phillips, at 1333.

The following presents the ordinary and customary meanings meanings of “coincident” as described in three (3) dictionaries (emphasis added):

1.) The Random House Dictionary of the English Language
(The Unabridged Edition), Copyright 1966 (Exhibit IV):

“coincident,” adj.

1. coinciding; occupying the same place or position.
2. happening at the same time
3. exactly corresponding.
4. in exact agreement (usually fol. by with)

The dictionary also states for the meaning of

“coinciding:

1. to come to occupy the same place in space, the same point or period in time, or the same relative position: the centers of the concentric circles coincide.

3. to correspond exactly, as in nature, character, etc.

2.) Webster’s Seventh New Collegiate Dictionary, Copyright 1969

(Exhibit V):

“coincident”:

1. occupying the same space or time.
2. of similar nature

3) Webster’s New International Dictionary of the English Language,

Second Edition, Unabridged, Copyright 1957 (Exhibit VI):

“coincident”:

A coincident thing or event.

“coincident”:

1. having coincidence of place, time or nature.

“coincidence”:

1. The condition of coinciding , or of occupying the same position, whether: (1) in space, or (2) in time or (3) in a series.
2. Correspondence in nature, character, result, etc.

The above underlined dictionary definitions are consistent with the meaning of “coincident” in the subject Application and the prosecution file history.

j. For the above reasons, the Board’s broadest reasonable interpretation of “coincident” and “centerlines coincident to a radius” is not consistent with the meaning of “coincident” as recited in the claims or disclosed and shown in the Specification, the Declarations or extrinsic sources in the form of general dictionaries.

It is therefore requested that the Decision’s “construction of “centerlines coincident to a radius” (first paragraph, page 6 of Decision) be reconsidered as it misapprehends the meaning intended by Applicants, it is too broad and it renders an unfair result to Applicants.

In drafting and filing the parent application to the subject Application, Applicants chose the very precise word “coincident.” The word chosen and its meaning was intentionally narrow to patentably describe the invention and distinguish

over the art. The idea stated in Prater and Wei, 162 U.S.P.Q. 541 (CCPA 1969) of determining the broadest reasonable construction to flush out prior art so that the applicant does not obtain a patent with claims that are too broad, the applicant being able to amend the claims to avoid the art, does not appear to apply in the subject situation since from the date of filing of the parent application of the subject application, Appellants had already narrowed its claims by selection and use of the dictionary word “coincident” and with its understood dictionary meaning.

However, by the Decision’s broad construction, the construction which Appellants submit is too broad, renders Appellants’ already narrowed claims 14 through 16 unpatentable for being anticipated by the Greenwood patent.

Further, the Decision defines “coincident” to include coverage which Applicants do not seek (radii which intersect centerlines of apertures), and which is not enabled in Applicants’ Specification. Respectfully, this seems unfair to Appellants. It is not in Appellants’ interest or in the public interest.

k. Appellants’ request that the Board revise its
broadest reasonable construction.

It is respectfully submitted that, in accordance and consistent with the

claims, specification, prosecution file history, and the above dictionary meanings, as well as Appellants intent when drafting and filing the subject application (i.e., to use words with narrow meaning), the meaning of “coincident” should be and is hereby requested to be revised to mean: “exactly corresponding or occupying the same place and position”, and the phrase “centerlines coincident to a radius” should mean “centerlines exactly corresponding to or occupying the same place and position as a radius.”

B. Appellants request rehearing and reversal of its affirmance of the Final rejection of claims 14-16 for anticipation by the Greenwood patent under 35 U.S.C. § 102(b).

In the Decision on appeal, the Board affirmed the appealed final rejections of claims 14-16 under 35 U.S.C. § 102 (b). Appellants request rehearing of and reversal of the Boards affirmance of the final rejection of those claims.

1. The Decision states that “Given the broadest reasonable interpretation of the critical phrase, the example of one of the plurality of apertures in the dome configured diaphragm member depicted in Greenwood’s Figure 17 reasonably appears to be identical to one of the plurality of apertures in the curved domed portion of a vent disc within the scope of Applicants’ claims (emphasis added).

The decision also states that Figure 17 depicts an aperture that reasonably appears to contain the radius of curvature of the domed portion of the disc throughout its thickness (emphasis added).

The decision further states that Figure 17 reasonably appears to describe an aperture with a centerline “coincident to a radius that forms a concave curvature of said domed portion (emphasis added).

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” Verdegaal Bros. V. Union Oil Co. of California, 814F.2d 628, 631, 2USPQ2d 1051, 1053 (Fed. Cir. 1987). “Under 35 U.S.C. Section 102, every limitation of a claim must identically appear in a single prior art reference for it to anticipate the claim.” Gechter v. Davidson, 116 F.3d 1454, 1457, 43USPQ2d 1030, 1032 (Fed. Cir. 1997). “The identical invention must be shown in as complete detail as is contained in the ... claim.” Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9USPQ2d 1913, 1920 (Fed. Cir. 1989).
(Copies of the above cases were submitted as Appendix D with the Appeal Brief).

2. It is submitted that Figure 17 of Greenwood does not anticipate claim 14. Figure 17 does not disclose more than one aperture, let alone expressly disclose “forming said plurality of apertures with each of said centerlines coincident to a radius that forms a concave curvature of said domed portion,” as recited in claim 14 (emphasis added). Figure 17 discloses only one aperture, not a plurality of apertures. Further, if the Board felt that there was an express teaching of the aforementioned limitation in Greenwood, the Board would have rejected the claim on that basis, rather than on the basis of “reasonably appears to be identical,” “reasonably appears to contain,” and “reasonably appears to describe.” The specification of Greenwood does not disclose the limitation.

The specification discloses that each aperture 73 is formed by a straight pin puncture through the diaphragm 72 in the apex region of each hemispherical recess. The pin used had a circular cross section (Greenwood, Col.8, lines 57-60 (emphasis added)). This corresponds with the information contained in the Declarations of the inventors, that Greenwood used a pin to form his holes. The Declarations establish that even when Playtex used a compass or push-pin to form apertures, the results were that the apertures were formed for example at random points of entry and random angles. See for example the Declaration of Mr. Chomik which states that:

“I used a comparator to examine hand-made puncture holes through vent discs that Playtex had on hand. I found that the puncture holes were randomly formed. They were random in terms of point of entry, angle, and contact/seal surface area. The puncture holes entered the residual material at various points on the interior surface of the domed depressions and the puncture holes were disposed at various angles through the residuals. The puncture holes did not form good seals and they sometimes leaked. (pp. 3, 4, para. 15).

To eliminate the randomness of the puncture holes, I decided that the perforations, preferably slits, should be formed automatically so that they would be substantially uniformly or identically and consistently formed through the vent disc. (p. 4, para. 17).

Thus, Greenwood does not disclose, let alone expressly and identically, the recited method step of “forming said plurality of apertures with each of said centerlines

coincident to a radius that forms a concave curvature of said domed portion,” as recited in claim 14, and as required.

The Decision states that drawings are evaluated “on the basis of what they reasonably disclose or suggest to one skilled in the art. Citing In re Islanian, 200 USPQ 500, 503 (CCPA 1979). However, that case is not applicable because it involves a § 103 obviousness rejection, not a 102 anticipation rejection.

2. The Greenwood patent does not inherently or implicitly describe the aforementioned limitation of “forming said plurality of apertures with each of said centerlines coincident to a radius that forms a concave curvature of said domed portion,” as recited in claim 14, and as required. To support an anticipation rejection based on inherency, an Examiner must provide factual and technical grounds establishing that the inherent feature necessarily flows from the teaching of the prior art. Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Int. 1990); In re Oelrich, 212 USPQ2d 323, 326 (C.C.P.A.1981) (holding that inherency must flow as a necessary conclusion from the prior art). The Examiner must provide basis in fact and /or technical reasoning to reasonably support the determination that the allegedly inherent fact necessarily flows from the teachings of the applied prior art. Ex parte Levy, supra. To establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of

circumstances is not sufficient. Inherent anticipation requires that the missing descriptive material is “necessarily present,” not merely probably or possibly present. In re Robertson, 49 USPQ2d 1949, 1950-51 (Fed.Cir. 1999). (Cases attached as Appendix D here and in App. Brief)

It is submitted and clear that, given the push-pin hole formation in Greenwood, the random point of entry and of angle experience of Playtex with poor results, and the total silence and lack of any hint of the limitation in Greenwood, the disclosure of the aforementioned claim 14 limitation is not necessarily present in Greenwood. The Examiner has not provided factual and technical grounds to establish that the aforementioned claim step is necessarily present, not merely possibly present, in Greenwood. It is submitted that the standard of express, identical presence needed to establish express anticipation also must also be necessarily and without doubt present, not merely possibly present. This is not the case in Greenwood.

3. The Board has misapprehended or overlooked the fact that there is no teaching in Greenwood of the step of forming a plurality of apertures with each of its centerlines coincident to a radius that forms a concave curvature of said domed portion.”

Significantly, there is no anticipation of claim 14 because Greenwood does not expressly or inherently disclose the aforementioned claim 14 limitation of “forming said plurality of apertures with each of said centerlines coincident to a radius that forms a concave curvature of said domed portion.” The rejection is based solely on what is shown in Figure 17. But Figure 17 shows only one depression and only one hole.

Figure 17 does not expressly, identically show or disclose and does not necessarily show or disclose the plurality aspects of the limitation. Figure 17 only shows one aperture, not a plurality. There is no like view of a plurality of apertures. There simply is no express disclosure that there is another aperture having the identical features as that shown in Figure 17. Further, even if it is reasonable to assume that the diaphragm of Greenwood would have a plurality of depressions and even holes, it is not expressly or inherently present in Greenwood that the forming of a plurality of holes necessarily, not merely possibly, would meet the claim limitation of “forming a plurality of apertures with each of its centerlines coincident to a radius that forms a concave curvature of said domed portion.” This is true given that Greenwood discloses that the single perforation of Figure 17 was formed with a push-pin, in the “apex region” of a depression, Greenwood has no other disclosure on the matter, and given that the Declaration of Mr. Chomik establishes the randomness of point of entry and of angles, all of which means that it cannot be said necessarily and without doubt, not merely probably or possibly, that there are a plurality of radii, depressions and perforations and that they are formed identically or necessarily according to the aforementioned limitation of claim 14.

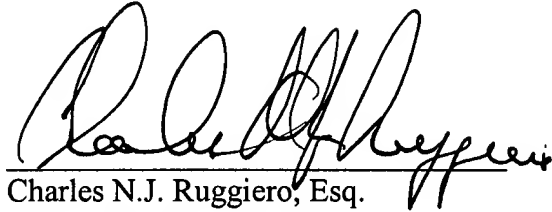
XIII. CONCLUSION

For the above reasons, Appellants respectfully request the Board to reverse its affirmance of the final rejection of claim 14, and find claim 14 (as well as claims 15 and

16, since they all stand together) patentable over Greenwood under Section 102

(b).

Dated: August 14, 2007



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CLAIMS APPENDIX

14. A method of forming a plurality of apertures in a concavely curved domed portion of a vent disc, said plurality of apertures each having centerlines, which comprises:

forming said plurality of apertures with each of said centerlines coincident to a radius that forms a concave curvature of said domed portion, wherein said plurality of apertures have at least two different diameters through said domed portion, wherein said plurality of apertures are resealable, and wherein said domed portion is elastomeric.

15. The method of claim 14, further comprising forming a portion of each of said plurality of apertures with a hemispherical shape.

16. A method of forming a plurality of perforations in a concavely curved domed portion of a vent disc, which comprises:

forming a plurality of upwardly extending depressions in an undersurface of said domed portion while leaving a residual of said domed portion above said plurality of depressions, said plurality of depressions each having a centerline, each of said centerlines being coincident with a radius that forms a concave curvature of said domed portion; and

forming a plurality of perforations through said residual, said plurality of perforations being resealable and each having a centerline, each of said centerlines of said plurality of perforations being formed coincident to a corresponding centerline of one of said plurality of depressions, wherein said domed portion is elastomeric.

EXHIBIT I

Phillips v. AWH Corp.

U.S. Court of Appeals
Federal Circuit

Nos. 03-1269, -1286

Decided July 12, 2005

PATENTS**[1] Patent construction — Claims — Broad or narrow (§ 125.1303)****Patent construction — Claims — Means (§ 125.1307)**

Term "baffles," as used in claim directed to impact-resistant building modules consisting of modular wall panels, is not means-plus-function limitation, even though claim refers to "means" disposed inside module's outer shell "for increasing its load bearing capacity," since claim specifically identifies "internal steel baffles" as structure that performs recited function of increasing shell's load bearing capacity, since reference to "baffles" does not use word "means," thus creating rebuttable presumption that sixth paragraph of 35 U.S.C. § 112 does not apply, and since claims and specification show that term "steel baffles" is structural, in that it refers to particular internal wall structures, and is not simply general description of any structure that will perform particular function; thus, term "baffles" is not limited to corresponding structures disclosed in specification and their equivalents.

[2] Patent construction — Claims — In general (§ 125.1301)**Patent construction — Claims — Defining terms (§ 125.1305)**

Intrinsic evidence is primary source for determining meaning of claim terms, since claims themselves provide substantial guidance as to meaning of particular terms, since claims are part of, and therefore must be read in view of, specification, which is always highly relevant to claim construction analysis, and is single best guide to meaning of disputed terms, and since prosecution history, like specification, was created by patentee in attempting to explain and obtain patent, and provides evidence of how U.S. Patent and Trademark Office and inventor understood patent, and thus can often inform meaning of

claim language by demonstrating how inventor understood invention and whether inventor limited scope of invention in course of prosecution.

[3] Patent construction — Claims — In general (§ 125.1301)**Patent construction — Claims — Defining terms (§ 125.1305)**

Extrinsic evidence in general is less reliable than patent and prosecution history in determining how to read claim terms, since it does not have specification's virtue of being created at time of patent prosecution for purpose of explaining patent's scope and meaning, since claims must be construed as they would be understood by hypothetical person of ordinary skill in art, whereas extrinsic publications may not be written by or for skilled artisans, since extrinsic evidence consisting of expert reports and testimony is generated for purpose of litigation, and thus can suffer from bias not present in intrinsic evidence, since there is virtually unbounded universe of potential extrinsic evidence that could be brought to bear on any claim construction question, and since undue reliance on extrinsic evidence poses risk that it will be used to change meaning of claims in derogation of intrinsic evidence, thereby undermining public notice function of patents.

[4] Patent construction — Claims — In general (§ 125.1301)**Patent construction — Claims — Defining terms (§ 125.1305)**

Methodology for claim interpretation in which specification is consulted only after ordinary meaning or meanings of disputed claim term is derived from dictionary, treatise, or other source is not proper approach to claim construction, since this approach improperly restricts role of specification, which is single best guide to meaning of claim terms, since elevating dictionary meaning to such prominence improperly focuses inquiry on abstract meaning of words, rather than on meaning of claim terms within context of patent, since dictionaries provide expansive array of definitions, such that use of dictionary may expand protection beyond what is properly afforded by patent, since different dictionaries may contain somewhat different sets of definitions

authorize the district court to open for further adjudication. Because our ed that the district court lacked jurisdiction was not free to do anything o dismiss the case. As we have previously, "[c]ompliance with an or inquis jurisdiction necessarily pre: lower court from taking any further er than dismissal, for to do so would retaining jurisdiction." *Baskerville*, at 1108. Thus, to comply with our the district court could only dismiss "[A]ny action by the lower court i immediate and complete dismissal ave been] by definition inconsistent d therefore a violation of—the order ss]." *Id.* In short, our instruction to t court was clear, direct, and limit- we conclude that the district court the mandate as directed. Thus, in re- ts action to that directed by the man- district court did not err.

on Submission's reliance on our pre- nion's footnote, 357 F.3d at 457 n.*, ced. In limiting our discussion to he district court had jurisdiction un- PA, as invoked by Invention Submis- simply took note that Invention Sub- ad not properly raised the *McAn-* trine as a jurisdictional basis before t court and therefore had not pre- at issue for consideration on appeal. : noted this fact in the footnote, we istruct the district court to consider ine on remand. Had the district court nyway, it would have had to violate did instruct: to dismiss the case for bject matter jurisdiction.

e the district court was bound by the of this court to dismiss this case for bject matter jurisdiction, and the dis- did dismiss this case, we conclude is no basis to reverse its order.

AFFIRMED

for same words, and since authors of dictionaries may simplify ideas to communicate them most effectively to public, and thus may choose meaning that is not pertinent to understanding of particular claim language; although dictionaries and similar sources may be consulted in order to understand commonly understood meanings of words and technology underlying claimed inventions, dictionary definitions may not be relied on to construe claim term if they contradict any definition found in or ascertained by reading of patent documents.

[5] Patent construction — Claims — In general (§ 125.1301)

There is no rigid algorithm for claim construction, and court is neither barred from considering any particular sources, nor required to analyze those sources in any specific sequence, provided sources are not used to contradict claim meaning that is unambiguous in light of intrinsic evidence; essential task in construing claim is attaching appropriate weight to various sources in light of statutes and policies that inform patent law, and sequence of steps used by court in consulting those sources is not important.

[6] Patent construction — Claims — Broad or narrow (§ 125.1303)

Patent construction — Claims — Defining terms (§ 125.1305)

Term "baffles," as used in claim directed to impact-resistant building modules consisting of modular wall panels, is not limited to panels providing impact or projectile resistance and oriented at angles other than 90 degrees, since claim requires only that baffles be made of steel, be part of load-bearing means of wall section of module, and be pointed inward from walls, and intrinsic evidence shows that person of ordinary skill in art would understand "baffles" to have generic meaning of objects that check, impede, or otherwise obstruct flow of something, since other claims of patent specify particular functions to be served by baffles, since invention clearly envisions baffles that serve function of deflecting projectiles, but specification does not imply that baffles must serve projectile-deflecting function in all embodiments of claims, since specification discusses several other purposes served by baffles, including provision of struc-

tural support and barrier wall between opposite wall faces of module, and since fact that written description sets forth multiple objectives to be served by baffles confirms that term should not be read restrictively to require that baffles in each case serve all recited functions.

[7] Patent construction — Claims — In general (§ 125.1301)

Patent construction — Claims — Defining terms (§ 125.1305)

Principle that claims should be construed, if possible, to preserve their validity is limited to cases in which court attempting to interpret claim concludes, after applying all available tools of claim construction, that claim is still ambiguous; that principle is inapplicable in present case, since claim term at issue is not ambiguous, and thus can be construed without need to consider whether one possible construction would render claim invalid while another would not.

Particular patents — General and mechanical — Building modules

4,677,798, Phillips, steel shell modules for prisoner detention facilities, summary judgment of noninfringement reversed.

Appeal from the U.S. District Court for the District of Colorado, Krieger, J.

Action by Edward H. Phillips against AWH Corp., Hopeman Brothers Inc., and Lofton Corp. for patent infringement and misappropriation of trade secrets. District court's decision granting summary judgment of noninfringement and dismissing trade secret claim was affirmed on appeal in judgment and opinion entered April 8, 2004 (70 USPQ2d 1417). Plaintiff-appellant's petition for rehearing en banc was granted, and judgment of April 8, 2004, was vacated and its accompanying opinion withdrawn (71 USPQ2d 1765). Parties and amici curiae submitted briefs directed to seven questions concerning claim construction raised by vacated panel majority and dissenting opinions. On rehearing en banc, district court's judgment is affirmed in part, reversed in part, dismissed in part, and remanded; Lourie, J., with whom Newman, J., joins, concurring in part and dissenting in part in separate opinion; Mayer, J., with whom

t and barrier wall between opposites of module, and since fact that baffles sets forth multiple objectives by baffles confirms that term is read restrictively to require that each case serve all recited functions.

construction — Claims — In (§ 125.1301)

construction — Claims — Definitions (§ 125.1305)

That claims should be construed, if reserve their validity is limited to each court attempting to interpret them, after applying all available construction, that claim is still that principle is inapplicable in since claim term at issue is not and thus can be construed without consideration whether one possible construction renders claim invalid while another does not.

patents — General and miscellaneous — Building modules

Phillips, steel shell modules for detention facilities, summary judgment reversed.

In the U.S. District Court for the District of Colorado, Krieger, J.

Edward H. Phillips against AWH Corporation, Hopeman Brothers, Inc., and Lofton Corporation. District court's decision reversing summary judgment of noninfringement and trade secret claim dismissed in judgment and opinion dated April 8, 2004 (70 USPQ2d 1417). Plaintiff's petition for rehearing denied, and judgment of April 8, 2004 affirmed and its accompanying opinion (71 USPQ2d 1765). Plaintiff submitted briefs directed at the panel majority and dissented. On rehearing en banc, dissent is affirmed in part, reversed in part; and rehearing denied, with Newman, J., with whom Newman, J., and Mayer, J., with whom

Newman, J., joins, dissenting in separate opinion.

Prior decision: 71 USPQ2d 1765.

Carl F. Manthei, Boulder, Colo., for plaintiff-appellant.

Mark W. Fischer, Neal S. Cohen, Peter J. Kinsella, and Scott E. Holwick, of Faegre & Benson, Boulder; Maurice M. Klee, Fairfield, Conn.; Kenneth C. Bass III, of Sterne, Kessler, Goldstein & Fox, Washington, D.C., for defendants/cross-appellants.

Before Michel, chief judge, and Newman, Mayer, Lourie, Clevenger, Rader, Schall, Bryson, Gajarsa, Linn, Dyk, and Prost, circuit judges.

Bryson, J.

Edward H. Phillips invented modular, steel-shell panels that can be welded together to form vandalism-resistant walls. The panels are especially useful in building prisons because they are load-bearing and impact-resistant, while also insulating against fire and noise. Mr. Phillips obtained a patent on the invention, U.S. Patent No. 4,677,798 ("the '798 patent"), and he subsequently entered into an arrangement with AWH Corporation, Hopeman Brothers, Inc., and Lofton Corporation (collectively "AWH") to market and sell the panels. That arrangement ended in 1990. In 1991, however, Mr. Phillips received a sales brochure from AWH that suggested to him that AWH was continuing to use his trade secrets and patented technology without his consent. In a series of letters in 1991 and 1992, Mr. Phillips accused AWH of patent infringement and trade secret misappropriation. Correspondence between the parties regarding the matter ceased after that time.

In February 1997, Mr. Phillips brought suit in the United States District Court for the District of Colorado charging AWH with misappropriation of trade secrets and infringement of claims 1, 21, 22, 24, 25, and 26 of the '798 patent. *Phillips v. AWH Corp.*, No. 97-N-212 (D. Colo.). The district court dismissed the trade secret misappropriation claim as barred by Colorado's three-year statute of limitations.

With regard to the patent infringement issue, the district court focused on the language of claim 1, which recites "further means disposed inside the shell for increasing its load bearing capacity comprising internal steel baffles extending inwardly from the steel shell walls." The court interpreted that language as

"a means . . . for performing a specified function," subject to 35 U.S.C. § 112, paragraph 6, which provides that such a claim "shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof." Looking to the specification of the '798 patent, the court noted that "every textual reference in the Specification and its diagrams show baffle deployment at an angle other than 90° to the wall faces" and that "placement of the baffles at such angles creates an intermediate interlocking, but not solid, internal barrier." The district court therefore ruled that, for purposes of the '798 patent, a baffle must "extend inward from the steel shell walls at an oblique or acute angle to the wall face" and must form part of an interlocking barrier in the interior of the wall module. Because Mr. Phillips could not prove infringement under that claim construction, the district court granted summary judgment of noninfringement.

Mr. Phillips appealed with respect to both the trade secret and patent infringement claims. A panel of this court affirmed on both issues. *Phillips v. AWH Corp.*, 363 F.3d 1207 [70 USPQ2d 1417] (Fed. Cir. 2004). As to the trade secret claim, the panel unanimously upheld the district court's ruling that the claim was barred by the applicable statute of limitations. *Id.* at 1215. As to the patent infringement claims, the panel was divided. The majority sustained the district court's summary judgment of noninfringement, although on different grounds. The dissenting judge would have reversed the summary judgment of noninfringement.

The panel first determined that because the asserted claims of the '798 patent contain a sufficient recitation of structure, the district court erred by construing the term "baffles" to invoke the "means-plus-function" claim format authorized by section 112, paragraph 6. *Id.* at 1212. Nonetheless, the panel concluded that the patent uses the term "baffles" in a restrictive manner. Based on the patent's written description, the panel held that the claim term "baffles" excludes structures that extend at a 90 degree angle from the walls. The panel noted that the specification repeatedly refers to the ability of the claimed baffles to deflect projectiles and that it describes the baffles as being "disposed at such angles that bullets which might penetrate the outer steel panels are deflected." '798 patent, col. 2, ll. 13-15;

see also *id.* at col. 5, ll. 17-19 (baffles are "disposed at angles which tend to deflect the bullets"). In addition, the panel observed that nowhere in the patent is there any disclosure of a baffle projecting from the wall at a right angle and that baffles oriented at 90 degrees to the wall were found in the prior art. Based on "the specification's explicit descriptions," the panel concluded "that the patentee regarded his invention as panels providing impact or projectile resistance and that the baffles must be oriented at angles other than 90°." *Phillips*, 363 F.3d at 1213. The panel added that the patent specification "is intended to support and inform the claims, and here it makes it unmistakably clear that the invention involves baffles angled at other than 90°." *Id.* at 1214. The panel therefore upheld the district court's summary judgment of noninfringement.

The dissenting judge argued that the panel had improperly limited the claims to the particular embodiment of the invention disclosed in the specification, rather than adopting the "plain meaning" of the term "baffles." The dissenting judge noted that the parties had stipulated that "baffles" are a "means for obstructing, impeding, or checking the flow of something," and that the panel majority had agreed that the ordinary meaning of baffles is "something for deflecting, checking, or otherwise regulating flow." *Phillips*, 363 F.3d at 1216-17. In the dissent's view, nothing in the specification redefined the term "baffles" or constituted a disclaimer specifically limiting the term to less than the full scope of its ordinary meaning. Instead, the dissenting judge contended, the specification "merely identifies impact resistance as one of several objectives of the invention." *Id.* at 1217. In sum, the dissent concluded that "there is no reason to supplement the plain meaning of the claim language with a limitation from the preferred embodiment." *Id.* at 1218. Consequently, the dissenting judge argued that the court should have adopted the general purpose dictionary definition of the term baffle, i.e., "something for deflecting, checking, or otherwise regulating flow," *id.*, and therefore should have reversed the summary judgment of noninfringement.

This court agreed to rehear the appeal en banc and vacated the judgment of the panel. *Phillips v. AWH Corp.*, 376 F.3d 1382 [71 USPQ2d 1765] (Fed. Cir. 2004). We now affirm the portion of the district court's judg-

ment addressed to the trade secret misappropriation claims. However, we reverse the portion of the court's judgment addressed to the issue of infringement.

I

Claim 1 of the '798 patent is representative of the asserted claims with respect to the use of the term "baffles." It recites:

Building modules adapted to fit together for construction of fire, sound and impact resistant security barriers and rooms for use in securing records and persons, comprising in combination, an outer shell . . . , sealant means . . . and further means disposed inside the shell for increasing its load bearing capacity comprising internal steel baffles extending inwardly from the steel shell walls.

[1] As a preliminary matter, we agree with the panel that the term "baffles" is not means-plus-function language that invokes 35 U.S.C. § 112, paragraph 6. To be sure, the claim refers to "means disposed inside the shell for increasing its load bearing capacity," a formulation that would ordinarily be regarded as invoking the means-plus-function claim format. However, the claim specifically identifies "internal steel baffles" as structure that performs the recited function of increasing the shell's load-bearing capacity. In contrast to the "load bearing means" limitation, the reference to "baffles" does not use the word "means," and we have held that the absence of that term creates a rebuttable presumption that section 112, paragraph 6, does not apply. See *Personalized Media Communications, LLC v. Int'l Trade Comm'n*, 161 F.3d 696, 703-04 [48 USPQ2d 1880] (Fed. Cir. 1998).

Means-plus-function claiming applies only to purely functional limitations that do not provide the structure that performs the recited function. See *Watts v. XL Sys., Inc.*, 232 F.3d 877, 880-81 [56 USPQ2d 1836] (Fed. Cir. 2000). While the baffles in the '798 patent are clearly intended to perform several functions, the term "baffles" is nonetheless structural; it is not a purely functional placeholder in which structure is filled in by the specification. See *TurboCare Div. of Demag Delaval Turbomachinery Corp. v. Gen. Elec. Co.*, 264 F.3d 1111, 1121 [60 USPQ2d 1017] (Fed. Cir. 2001) (reasoning that nothing in the specification or prosecution history suggests that the patentee used the term "compressed spring"

ssed to the trade secret misappropriations. However, we reverse the court's judgment addressed to the ringement.

I

of the '798 patent is representative of claims with respect to the use "baffles." It recites:

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reliminary matter, we agree with the term "baffles" is not means-language that invokes 35 U.S.C. aph 6. To be sure, the claim rens disposed inside the shell for load bearing capacity," a formula-ld ordinarily be regarded as in-eans-plus-function claim format. claim specifically identifies "in-ffles" as structure that performs nction of increasing the shell's apacity. In contrast to the "load s" limitation, the reference to not use the word "means," and hat the absence of that term cre-le presumption that section 112, oes not apply. See *Personalized unications, LLC v. Int'l Trade* F.3d 696, 703-04 [48 USPQ2d r. 1998).

function claiming applies only tional limitations that do not icture that performs the recited *Vatts v. XL Sys., Inc.*, 232 F.3d 56 USPQ2d 1836] (Fed. Cir. e baffles in the '798 patent are 1 to perform several functions, s" is nonetheless structural; it unctional placeholder in which d in by the specification. See *of Demag Delaval Turboma- v. Gen. Elec. Co.*, 264 F.3d) USPQ2d 1017] (Fed. Cir. g that nothing in the specifica- tion history suggests that the e term "compressed spring"

to denote any structure that is capable of performing the specified function); *Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d 1580, 1583 [39 USPQ2d 1783] (Fed. Cir. 1996) (construing the term "detent mechanism" to refer to particular structure, even though the term has functional connotations). The claims and the specification unmistakably establish that the "steel baffles" refer to particular physical apparatus. The claim characterizes the baffles as "extend[ing] inwardly" from the steel shell walls, which plainly implies that the baffles are structures. The specification likewise makes clear that the term "steel baffles" refers to particular internal wall structures and is not simply a general description of any structure that will perform a particular function. See, e.g., '798 patent, col. 4, ll. 25-26 ("the load bearing baffles 16 are optionally used with longer panels"); *id.*, col. 4, ll. 49-50 (opposing panels are "compressed between the flange 35 and the baffle 26"). Because the term "baffles" is not subject to section 112, paragraph 6, we agree with the panel that the district court erred by limiting the term to corresponding structures disclosed in the specification and their equivalents. Accordingly, we must determine the correct construction of the structural term "baffles," as used in the '798 patent.

II

The first paragraph of section 112 of the Patent Act, 35 U.S.C. § 112, states that the specification

shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains . . . to make and use the same . . .

The second paragraph of section 112 provides that the specification

shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Those two paragraphs of section 112 frame the issue of claim interpretation for us. The second paragraph requires us to look to the language of the claims to determine what "the applicant regards as his invention." On the other hand, the first paragraph requires that the specification describe the invention set

forth in the claims. The principal question that this case presents to us is the extent to which we should resort to and rely on a patent's specification in seeking to ascertain the proper scope of its claims.

This is hardly a new question. The role of the specification in claim construction has been an issue in patent law decisions in this country for nearly two centuries. We addressed the relationship between the specification and the claims at some length in our en banc opinion in *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979-81 [34 USPQ2d 1321] (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 [38 USPQ2d 1461] (1996). We again summarized the applicable principles in *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576 [39 USPQ2d 1573] (Fed. Cir. 1996), and more recently in *Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*, 381 F.3d 1111 [72 USPQ2d 1001] (Fed. Cir. 2004). What we said in those cases bears restating, for the basic principles of claim construction outlined there are still applicable, and we reaffirm them today. We have also previously considered the use of dictionaries in claim construction. What we have said in that regard requires clarification.

A

It is a "bedrock principle" of patent law that "the claims of a patent define the invention to which the patentee is entitled the right to exclude." *Innova*, 381 F.3d at 1115; see also *Vitronics*, 90 F.3d at 1582 ("we look to the words of the claims themselves . . . to define the scope of the patented invention"); *Markman*, 52 F.3d at 980 ("The written description part of the specification itself does not delimit the right to exclude. That is the function and purpose of claims."). That principle has been recognized since at least 1836, when Congress first required that the specification include a portion in which the inventor "shall particularly specify and point out the part, improvement, or combination, which he claims as his own invention or discovery." Act of July 4, 1836, ch. 357, § 6, 5 Stat. 117, 119. In the following years, the Supreme Court made clear that the claims are "of primary importance, in the effort to ascertain precisely what it is that is patented." *Merrill v. Yeomans*, 94 U.S. 568, 570 (1876). Because the patentee is required to "define precisely what his invention is," the Court explained, it is "unjust to the public, as well as an evasion of

the law, to construe it in a manner different from the plain import of its terms." *White v. Dunbar*, 119 U.S. 47, 52 (1886); see also *Cont'l Paper Bag Co. v. E. Paper Bag Co.*, 210 U.S. 405, 419 (1908) ("the claims measure the invention"); *McCarty v. Lehigh Valley R.R. Co.*, 160 U.S. 110, 116 (1895) ("if we once begin to include elements not mentioned in the claim, in order to limit such claim . . . , we should never know where to stop"); *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 339 [128 USPQ 354] (1961) ("the claims made in the patent are the sole measure of the grant").

We have frequently stated that the words of a claim "are generally given their ordinary and customary meaning." *Vitronics*, 90 F.3d at 1582; see also *Toro Co. v. White Consol. Indus., Inc.*, 199 F.3d 1295, 1299 [53 USPQ2d 1065] (Fed. Cir. 1999); *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1249 [48 USPQ2d 1117] (Fed. Cir. 1998). We have made clear, moreover, that the ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application. See *Innova*, 381 F.3d at 1116 ("A court construing a patent claim seeks to accord a claim the meaning it would have to a person of ordinary skill in the art at the time of the invention."); *Home Diagnostics, Inc. v. LifeScan, Inc.*, 381 F.3d 1352, 1358 [72 USPQ2d 1276] (Fed. Cir. 2004) ("customary meaning" refers to the "customary meaning in [the] art field"); *Ferguson Beauregard/Logic Controls v. Mega Sys., LLC*, 350 F.3d 1327, 1338 [69 USPQ2d 1001] (Fed. Cir. 2003) (claim terms "are examined through the viewing glass of a person skilled in the art"); see also *PC Connector Solutions LLC v. SmartDisk Corp.*, 406 F.3d 1359, 1363 [74 USPQ2d 1698] (Fed. Cir. 2005) (meaning of claim "must be interpreted as of [the] effective filing date" of the patent application); *Schering Corp. v. Amgen Inc.*, 222 F.3d 1347, 1353 [55 USPQ2d 1650] (Fed. Cir. 2000) (same).

The inquiry into how a person of ordinary skill in the art understands a claim term provides an objective baseline from which to begin claim interpretation. See *Innova*, 381 F.3d at 1116. That starting point is based on the well-settled understanding that inventors are typically persons skilled in the field of the in-

vention and that patents are addressed to and intended to be read by others of skill in the pertinent art. See *Verve, LLC v. Crane Cams, Inc.*, 311 F.3d 1116, 1119 [65 USPQ2d 1051] (Fed. Cir. 2002) (patent documents are meant to be "a concise statement for persons in the field"); *In re Nelson*, 280 F.2d 172, 181 [126 USPQ 242] (CCPA 1960) ("The descriptions in patents are not addressed to the public generally, to lawyers or to judges, but, as section 112 says, to those skilled in the art to which the invention pertains or with which it is most nearly connected.").

Importantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification. This court explained that point well in *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1477 [45 USPQ2d 1429] (Fed. Cir. 1998):

It is the person of ordinary skill in the field of the invention through whose eyes the claims are construed. Such person is deemed to read the words used in the patent documents with an understanding of their meaning in the field, and to have knowledge of any special meaning and usage in the field. The inventor's words that are used to describe the invention—the inventor's lexicography—must be understood and interpreted by the court as they would be understood and interpreted by a person in that field of technology. Thus the court starts the decisionmaking process by reviewing the same resources as would that person, viz., the patent specification and the prosecution history.

See also *Medrad, Inc. v. MRI Devices Corp.*, 401 F.3d 1313, 1319 [74 USPQ2d 1184] (Fed. Cir. 2005) ("We cannot look at the ordinary meaning of the term . . . in a vacuum. Rather, we must look at the ordinary meaning in the context of the written description and the prosecution history."); *V-Formation, Inc. v. Benetton Group SpA*, 401 F.3d 1307, 1310 [74 USPQ2d 1042] (Fed. Cir. 2005) (intrinsic record "usually provides the technological and temporal context to enable the court to ascertain the meaning of the claim to one of ordinary skill in the art at the time of the invention"); *Unitherm Food Sys., Inc. v. Swift-Eckrich, Inc.*, 375 F.3d 1341, 1351 [71 USPQ2d 1705] (Fed. Cir. 2004) (proper defi-

that patents are addressed to and be read by others of skill in the art. See *Verve, LLC v. Crane Cams*, 377 F.3d 1116, 1119 [65 USPQ2d 1051] (2006) (patent documents are meant to be read by persons in the art, not by judges, but, as section 112(b) of the patent law requires, the descriptions are not addressed to the public generally or to judges, but, as section 112(b) of the patent law requires, those skilled in the art to which the invention pertains or with which it is most closely related.”).

Thus, the person of ordinary skill in the art is the person to whom the claim term is to be read in the context of the particular claim in which the term appears, but in the context of the entire patent, including the specification. This court explained that point in *Form Desiccants, Inc. v. Medzam*, 377 F.3d 1473, 1477 [45 USPQ2d 1429] (2006):

“The person of ordinary skill in the art is the person through whose eyes the invention is to be read. Such person is to read the words used in the patent with an understanding of their meaning in the field, and to have knowledge of the special meaning and usage in the art of the inventor’s words that are used in the invention—the inventor’s words—must be understood and interpreted by the court as they would be understood and interpreted by a person in that field. Thus the court starts the claim construction process by reviewing the claim as would that person, viz., in light of the specification and the prosecution

history. *Id.*, Inc. v. *MRI Devices Corp.*, 377 F.3d 1319 [74 USPQ2d 1184] (Fed. Cir. 2006) (“the court cannot look at the ordinary meaning of the claim term in a vacuum. Rather, the court must look at the ordinary meaning in the context of the written description and the prosecution history.”); *V-Formation, Inc. v. SpA*, 401 F.3d 1307, 1310 [74 USPQ2d 1307] (Fed. Cir. 2005) (“the intrinsic evidence provides the technological context to enable the court to assign the claim to one of ordinary skill in the art at the time of the invention.”); *Food Sys., Inc. v. Swift*, 377 F.3d 1341, 1351 [71 USPQ2d 1341] (Fed. Cir. 2004) (proper defini-

tion is the “definition that one of ordinary skill in the art could ascertain from the intrinsic evidence in the record”).

B

In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words. See *Brown v. 3M*, 265 F.3d 1349, 1352 [60 USPQ2d 1375] (Fed. Cir. 2001) (holding that the claims did “not require elaborate interpretation”). In such circumstances, general purpose dictionaries may be helpful. In many cases that give rise to litigation, however, determining the ordinary and customary meaning of the claim requires examination of terms that have a particular meaning in a field of art. Because the meaning of a claim term as understood by persons of skill in the art is often not immediately apparent, and because patentees frequently use terms idiosyncratically, the court looks to “those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean.” *Innova*, 381 F.3d at 1116. Those sources include “the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.” *Id.*; see also *Gemstar-TV Guide Int’l, Inc. v. Int’l Trade Comm’n*, 383 F.3d 1352, 1364 [72 USPQ2d 1609] (Fed. Cir. 2004); *Vitronics*, 90 F.3d at 1582-83; *Markman*, 52 F.3d at 979-80.

1

[2] Quite apart from the written description and the prosecution history, the claims themselves provide substantial guidance as to the meaning of particular claim terms. See *Vitronics*, 90 F.3d at 1582; see also *ACTV, Inc. v. Walt Disney Co.*, 346 F.3d 1082, 1088 [68 USPQ2d 1516] (Fed. Cir. 2003) (“the context of the surrounding words of the claim also must be considered in determining the ordinary and customary meaning of those terms”).

To begin with, the context in which a term is used in the asserted claim can be highly instructive. To take a simple example, the claim in this case refers to “steel baffles,” which

strongly implies that the term “baffles” does not inherently mean objects made of steel. This court’s cases provide numerous similar examples in which the use of a term within the claim provides a firm basis for construing the term. See, e.g., *Mars, Inc. v. H.J. Heinz Co.*, 377 F.3d 1369, 1374 [71 USPQ2d 1837] (Fed. Cir. 2004) (claim term “ingredients” construed in light of the use of the term “mixture” in the same claim phrase); *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1356 [52 USPQ2d 1029] (Fed. Cir. 1999) (claim term “discharge rate” construed in light of the use of the same term in another limitation of the same claim).

Other claims of the patent in question, both asserted and unasserted, can also be valuable sources of enlightenment as to the meaning of a claim term. *Vitronics*, 90 F.3d at 1582. Because claim terms are normally used consistently throughout the patent, the usage of a term in one claim can often illuminate the meaning of the same term in other claims. See *Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336, 1342 [60 USPQ2d 1851] (Fed. Cir. 2001); *CVI/Beta Ventures, Inc. v. Tura LP*, 112 F.3d 1146, 1159 [42 USPQ2d 1577] (Fed. Cir. 1997). Differences among claims can also be a useful guide in understanding the meaning of particular claim terms. See *Laitram Corp. v. Rexnord, Inc.*, 939 F.2d 1533, 1538 [19 USPQ2d 1367] (Fed. Cir. 1991). For example, the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim. See *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 [69 USPQ2d 1801] (Fed. Cir. 2004).

2

The claims, of course, do not stand alone. Rather, they are part of “a fully integrated written instrument,” *Markman*, 52 F.3d at 978, consisting principally of a specification that concludes with the claims. For that reason, claims “must be read in view of the specification, of which they are a part.” *Id.* at 979. As we stated in *Vitronics*, the specification “is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” 90 F.3d at 1582.

This court and its predecessors have long emphasized the importance of the specification in claim construction. In *Autogiro Co. of America v. United States*, 384 F.2d 391,

397-98 [155 USPQ 697] (Ct. Cl. 1967), the Court of Claims characterized the specification as "a concordance for the claims," based on the statutory requirement that the specification "describe the manner and process of making and using" the patented invention. The Court of Customs and Patent Appeals made a similar point. See *In re Fout*, 675 F.2d 297, 300 [213 USPQ 532] (CCPA 1982) ("Claims must always be read in light of the specification. Here, the specification makes plain what the appellants did and did not invent . . .").

Shortly after the creation of this court, Judge Rich wrote that "[t]he descriptive part of the specification aids in ascertaining the scope and meaning of the claims inasmuch as the words of the claims must be based on the description. The specification is, thus, the primary basis for construing the claims." *Standard Oil Co. v. Am. Cyanamid Co.*, 774 F.2d 448, 452 [227 USPQ 293] (Fed. Cir. 1985). On numerous occasions since then, we have reaffirmed that point, stating that "[t]he best source for understanding a technical term is the specification from which it arose, informed, as needed, by the prosecution history." *Multiform Dessicants*, 133 F.3d at 1478; *Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1360 [71 USPQ2d 1081] (Fed. Cir. 2004) ("In most cases, the best source for discerning the proper context of claim terms is the patent specification wherein the patent applicant describes the invention."); see also, e.g., *Kinik Co. v. Int'l Trade Comm'n*, 362 F.3d 1359, 1365 [70 USPQ2d 1300] (Fed. Cir. 2004) ("The words of patent claims have the meaning and scope with which they are used in the specification and the prosecution history."); *Moba, B.V. v. Diamond Automation, Inc.*, 325 F.3d 1306, 1315 [66 USPQ2d 1429] (Fed. Cir. 2003) ("[T]he best indicator of claim meaning is its usage in context as understood by one of skill in the art at the time of invention.").

That principle has a long pedigree in Supreme Court decisions as well. See *Hogg v. Emerson*, 47 U.S. (6 How.) 437, 482 (1848) (the specification is a "component part of the patent" and "is as much to be considered with the [letters patent] in construing them, as any paper referred to in a deed or other contract"); *Bates v. Coe*, 98 U.S. 31, 38 (1878) ("in case of doubt or ambiguity it is proper in all cases to refer back to the descriptive portions of the

specification to aid in solving the doubt or in ascertaining the true intent and meaning of the language employed in the claims"); *White v. Dunbar*, 119 U.S. 47, 51 (1886) (specification is appropriately resorted to "for the purpose of better understanding the meaning of the claim"); *Schriber-Schroth Co. v. Cleveland Trust Co.*, 311 U.S. 211, 217 (1940) ("The claims of a patent are always to be read or interpreted in light of its specifications."); *United States v. Adams*, 383 U.S. 39, 49 [148 USPQ 479] (1966) ("[I]t is fundamental that claims are to be construed in the light of the specifications and both are to be read with a view to ascertaining the invention.").

The importance of the specification in claim construction derives from its statutory role. The close kinship between the written description and the claims is enforced by the statutory requirement that the specification describe the claimed invention in "full, clear, concise, and exact terms." 35 U.S.C. § 112, para. 1; see *Netword, LLC v. Centraal Corp.*, 242 F.3d 1347, 1352 [58 USPQ2d 1076] (Fed. Cir. 2001) ("The claims are directed to the invention that is described in the specification; they do not have meaning removed from the context from which they arose."); see also *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 389 [38 USPQ2d 1461] (1996) ("[A claim] term can be defined only in a way that comports with the instrument as a whole."). In light of the statutory directive that the inventor provide a "full" and "exact" description of the claimed invention, the specification necessarily informs the proper construction of the claims. See *Merck & Co. v. Teva Pharms. USA, Inc.*, 347 F.3d 1367, 1371 [68 USPQ2d 1857] (Fed. Cir. 2003) ("A fundamental rule of claim construction is that terms in a patent document are construed with the meaning with which they are presented in the patent document. Thus claims must be construed so as to be consistent with the specification; of which they are a part.") (citations omitted). In *Renishaw*, this court summarized that point succinctly:

Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim. The construction that stays true to the claim language and most naturally aligns with the patent's de-

n solving the doubt or in intent and meaning of the in the claims"); *White v. ...*, 51 (1886) (specification orted to "for the purpose ling the meaning of the throth Co. v. Cleveland ... 211, 217 (1940) ("The e always to be read or in- of its specifications."); ns, 383 U.S. 39, 49 [148 "[I]t is fundamental that strued in the light of the th are to be read with a the invention.").

the specification in claim from its statutory role. ween the written descrip- is enforced by the statu- at the specification de- vention in "full, clear, rms." 35 U.S.C. § 112, LLC v. Centraal Corp., [58 USPQ2d 1076] (Fed. ms are directed to the in- bed in the specification; aning removed from the they arose."); see also v Instruments, Inc., 517 PQ2d 1461] (1996) ("[A ifined only in a way that strument as a whole."). ry directive, that the in- l" and "exact" descrip- vention, the specification e proper construction of & Co. v. Teva Pharms. 367, 1371 [68 USPQ2d) ("A fundamental rule is that terms in a patent ued with the meaning presented in the patent is must be construed so ith the specification, of ") (citations omitted). In summarized that point

terpretation to be given e determined and con- derstanding of what the ventioned and intended to laim. The construction ie claim language and s with the patent's de-

scription of the invention will be, in the end, the correct construction. 158 F.3d at 1250 (citations omitted).

Consistent with that general principle, our cases recognize that the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor's lexicography governs. See *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 [62 USPQ2d 1658] (Fed. Cir. 2002). In other cases, the specification may reveal an intentional disclaimer, or disavowal, of claim scope by the inventor. In that instance as well, the inventor has dictated the correct claim scope, and the inventor's intention, as expressed in the specification, is regarded as dispositive. See *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1343-44 [58 USPQ2d 1059] (Fed. Cir. 2001).

The pertinence of the specification to claim construction is reinforced by the manner in which a patent is issued. The Patent and Trademark Office ("PTO") determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction "in light of the specification as it would be interpreted by one of ordinary skill in the art." *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 [70 USPQ2d 1827] (Fed. Cir. 2004). Indeed, the rules of the PTO require that application claims must "conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description." 37 C.F.R. § 1.75(d)(1). It is therefore entirely appropriate for a court, when conducting claim construction, to rely heavily on the written description for guidance as to the meaning of the claims.

3

In addition to consulting the specification, we have held that a court "should also consider the patent's prosecution history, if it is in evidence." *Markman*, 52 F.3d at 980; see also *Graham v. John Deere Co.*, 383 U.S. 1, 33 [148 USPQ 459] (1966) ("[A]n invention is construed not only in the light of the claims, but also with reference to the file wrapper or

prosecution history in the Patent Office."). The prosecution history, which we have designated as part of the "intrinsic evidence," consists of the complete record of the proceedings before the PTO and includes the prior art cited during the examination of the patent. *Autogiro*, 384 F.2d at 399. Like the specification, the prosecution history provides evidence of how the PTO and the inventor understood the patent. See *Lemelson v. Gen. Mills, Inc.*, 968 F.2d 1202, 1206 [23 USPQ2d 1284] (Fed. Cir. 1992). Furthermore, like the specification, the prosecution history was created by the patentee in attempting to explain and obtain the patent. Yet because the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes. See *Inverness Med. Switz. GmbH v. Warner Lambert Co.*, 309 F.3d 1373, 1380-82 [64 USPQ2d 1933] (Fed. Cir. 2002) (the ambiguity of the prosecution history made it less relevant to claim construction); *Athletic Alternatives, Inc. v. Prince Mfg., Inc.*, 73 F.3d 1573, 1580 [37 USPQ2d 1365] (Fed. Cir. 1996) (the ambiguity of the prosecution history made it "unhelpful as an interpretive resource" for claim construction). Nonetheless, the prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be. *Vitronics*, 90 F.3d at 1582-83; see also *Chimie v. PPG Indus., Inc.*, 402 F.3d 1371, 1384 [74 USPQ2d 1321] (Fed. Cir. 2005) ("The purpose of consulting the prosecution history in construing a claim is to 'exclude any interpretation that was disclaimed during prosecution.'"), quoting *ZMI Corp. v. Cardiac Resuscitator Corp.*, 844 F.2d 1576, 1580 [6 USPQ2d 1557] (Fed. Cir. 1988); *Southwall Techs., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1576 [34 USPQ2d 1673] (Fed. Cir. 1995).

C

Although we have emphasized the importance of intrinsic evidence in claim construction, we have also authorized district courts to rely on extrinsic evidence, which "consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises."

Markman, 52 F.3d at 980, citing *Seymour v. Osborne*, 78 U.S. (11 Wall.) 516, 546 (1870); see also *Vitronics*, 90 F.3d at 1583. However, while extrinsic evidence "can shed useful light on the relevant art," we have explained that it is "less significant than the intrinsic record in determining 'the legally operative meaning of claim language.'" *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 862 [73 USPQ2d 1011] (Fed. Cir. 2004), quoting *Vanderlande Indus. Nederland BV v. Int'l Trade Comm'n*, 366 F.3d 1311, 1318 [70 USPQ2d 1696] (Fed. Cir. 2004); see also *Astrazeneca AB v. Mutual Pharm. Co.*, 384 F.3d 1333, 1337 [72 USPQ2d 1726] (Fed. Cir. 2004).

Within the class of extrinsic evidence, the court has observed that dictionaries and treatises can be useful in claim construction. See *Renishaw*, 158 F.3d at 1250; *Rexnord*, 274 F.3d at 1344. We have especially noted the help that technical dictionaries may provide to a court "to better understand the underlying technology" and the way in which one of skill in the art might use the claim terms. *Vitronics*, 90 F.3d at 1584 n.6. Because dictionaries, and especially technical dictionaries, endeavor to collect the accepted meanings of terms used in various fields of science and technology, those resources have been properly recognized as among the many tools that can assist the court in determining the meaning of particular terminology to those of skill in the art of the invention. See *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 [63 USPQ2d 1374] (Fed. Cir. 2002). Such evidence, we have held, may be considered if the court deems it helpful in determining "the true meaning of language used in the patent claims." *Markman*, 52 F.3d at 980.

We have also held that extrinsic evidence in the form of expert testimony can be useful to a court for a variety of purposes, such as to provide background on the technology at issue, to explain how an invention works, to ensure that the court's understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field. See *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1308-09 [51 USPQ2d 1161] (Fed. Cir. 1999); *Key Pharms. v. Hercon Labs. Corp.*, 161 F.3d 709, 716 [63 USPQ2d 1374] (Fed. Cir. 1998). However,

conclusory, unsupported assertions by experts as to the definition of a claim term are not useful to a court. Similarly, a court should discount any expert testimony "that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history, in other words, with the written record of the patent." *Key Pharms.*, 161 F.3d at 716.

[3] We have viewed extrinsic evidence in general as less reliable than the patent and its prosecution history in determining how to read claim terms, for several reasons. First, extrinsic evidence by definition is not part of the patent and does not have the specification's virtue of being created at the time of patent prosecution for the purpose of explaining the patent's scope and meaning. Second, while claims are construed as they would be understood by a hypothetical person of skill in the art, extrinsic publications may not be written by or for skilled artisans and therefore may not reflect the understanding of a skilled artisan in the field of the patent. Third, extrinsic evidence consisting of expert reports and testimony is generated at the time of and for the purpose of litigation and thus can suffer from bias that is not present in intrinsic evidence. The effect of that bias can be exacerbated if the expert is not one of skill in the relevant art or if the expert's opinion is offered in a form that is not subject to cross-examination. See *Senmed, Inc. v. Richard-Allan Med. Indus., Inc.*, 888 F.2d 815, 819 n.8 [12 USPQ2d 1508] (Fed. Cir. 1989). Fourth, there is a virtually unbounded universe of potential extrinsic evidence of some marginal relevance that could be brought to bear on any claim construction question. In the course of litigation, each party will naturally choose the pieces of extrinsic evidence most favorable to its cause, leaving the court with the considerable task of filtering the useful extrinsic evidence from the fluff. See *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 595 [27 USPQ2d 1200] (1993) ("Expert evidence can be both powerful and quite misleading because of the difficulty in evaluating it."). Finally, undue reliance on extrinsic evidence poses the risk that it will be used to change the meaning of claims in derogation of the "indisputable public records consisting of the claims, the specification and the prosecution history," thereby undermining the public no-

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In sum, extrinsic evidence may be useful to the court, but it is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence. Nonetheless, because extrinsic evidence can help educate the court regarding the field of the invention and can help the court determine what a person of ordinary skill in the art would understand claim terms to mean, it is permissible for the district court in its sound discretion to admit and use such evidence. In exercising that discretion, and in weighing all the evidence bearing on claim construction, the court should keep in mind the flaws inherent in each type of evidence and assess that evidence accordingly.

III

Although the principles outlined above have been articulated on numerous occasions, some of this court's cases have suggested a somewhat different approach to claim construction, in which the court has given greater emphasis to dictionary definitions of claim terms and has assigned a less prominent role to the specification and the prosecution history. The leading case in this line is *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193 [64 USPQ2d 1812] (Fed. Cir. 2002).

A

In *Texas Digital*, the court noted that "dictionaries, encyclopedias and treatises are particularly useful resources to assist the court in determining the ordinary and customary meanings of claim terms." 308 F.3d at 1202. Those texts, the court explained, are "objective resources that serve as reliable sources of information on the established meanings that would have been attributed to the terms of the claims by those of skill in the art," and they "deserve no less fealty in the context of claim construction" than in any other area of law. *Id.* at 1203. The court added that because words often have multiple dictionary meanings, the intrinsic record must be consulted to determine which of the different possible dictionary meanings is most consistent with the use of the term in question by the inventor. If more than one dictionary definition is consistent with the use of the words in the intrinsic record, the court stated, "the claim terms may

be construed to encompass all such consistent meanings." *Id.*

The *Texas Digital* court further explained that the patent's specification and prosecution history must be consulted to determine if the patentee has used "the words [of the claim] in a manner clearly inconsistent with the ordinary meaning reflected, for example, in a dictionary definition." 308 F.3d at 1204. The court identified two circumstances in which such an inconsistency may be found. First, the court stated, "the presumption in favor of a dictionary definition will be overcome where the patentee, acting as his or her own lexicographer, has clearly set forth an explicit definition of the term different from its ordinary meaning." *Id.* Second, "the presumption also will be rebutted if the inventor has disavowed or disclaimed scope of coverage, by using words or expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope." *Id.*

The *Texas Digital* court explained that it advanced the methodology set forth in that opinion in an effort to combat what this court has termed "one of the cardinal sins of patent law—reading a limitation from the written description into the claims," *SciMed Life Sys.*, 242 F.3d at 1340. The court concluded that it is improper to consult "the written description and prosecution history as a threshold step in the claim construction process, before any effort is made to discern the ordinary and customary meanings attributed to the words themselves." *Texas Digital*, 308 F.3d at 1204. To do so, the court reasoned, "invites a violation of our precedent counseling against importing limitations into the claims." *Id.* Summarizing its analysis, the *Texas Digital* court stated:

By examining relevant dictionaries, encyclopedias, and treatises to ascertain possible meanings that would have been attributed to the words of the claims by those skilled in the art, and by further utilizing the intrinsic record to select from those possible meanings the one or ones most consistent with the use of the words by the inventor, the full breadth of the limitations intended by the inventor will be more accurately determined and the improper importation of unintended limitations from the written description into the claims will be more easily avoided.

Id. at 1205.

B

[4] Although the concern expressed by the court in *Texas Digital* was valid, the methodology it adopted placed too much reliance on extrinsic sources such as dictionaries, treatises, and encyclopedias and too little on intrinsic sources, in particular the specification and prosecution history. While the court noted that the specification must be consulted in every case, it suggested a methodology for claim interpretation in which the specification should be consulted only after a determination is made, whether based on a dictionary, treatise, or other source, as to the ordinary meaning or meanings of the claim term in dispute. Even then, recourse to the specification is limited to determining whether the specification excludes one of the meanings derived from the dictionary, whether the presumption in favor of the dictionary definition of the claim term has been overcome by "an explicit definition of the term different from its ordinary meaning," or whether the inventor "has disavowed or disclaimed scope of coverage, by using words or expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope." 308 F.3d at 1204. In effect, the *Texas Digital* approach limits the role of the specification in claim construction to serving as a check on the dictionary meaning of a claim term if the specification requires the court to conclude that fewer than all the dictionary definitions apply, or if the specification contains a sufficiently specific alternative definition or disavowal. See, e.g., *Texas Digital*, 308 F.3d at 1202 ("unless compelled otherwise, a court will give a claim term the full range of its ordinary meaning"); *Nystrom v. TREX Co.*, 374 F.3d 1105, 1111-13 [71 USPQ2d 1241] (Fed. Cir. 2004) (ascertaining the "full range" of the ordinary meaning of the term "board" through a collection of dictionary definitions, and stating that those candidate definitions should be removed from consideration only if they were "disclaimed" in the written description or prosecution history); *Inverness Med. Switz.*, 309 F.3d at 1379 (claim should be construed to encompass multiple dictionary meanings unless "the specification or prosecution history clearly demonstrates that only one of the multiple meanings was intended"). That approach, in our view, improperly restricts the role of the specification in claim construction.

Assigning such a limited role to the specification, and in particular requiring that any definition of claim language in the specification be express, is inconsistent with our rulings that the specification is "the single best guide to the meaning of a disputed term," and that the specification "acts as a dictionary when it expressly defines terms used in the claims or when it defines terms by implication." *Vitronics*, 90 F.3d at 1582; *Irdeto Access, Inc. v. Echostar Satellite Corp.*, 383 F.3d 1295, 1300 [72 USPQ2d 1678] (Fed. Cir. 2004) ("Even when guidance is not provided in explicit definitional format, the specification may define claim terms by implication such that the meaning may be found in or ascertained by a reading of the patent documents.") (citations omitted); *Novartis Pharms. Corp. v. Abbott Labs.*, 375 F.3d 1328, 1334-35 [71 USPQ2d 1650] (Fed. Cir. 2004) (same); *Bell Atl. Network Servs., Inc. v. Covad Communications Group, Inc.*, 262 F.3d 1258, 1268 [59 USPQ2d 1865] (Fed. Cir. 2001) ("[A] claim term may be clearly redefined without an explicit statement of redefinition.").

The main problem with elevating the dictionary to such prominence is that it focuses the inquiry on the abstract meaning of words rather than on the meaning of claim terms within the context of the patent. Properly viewed, the "ordinary meaning" of a claim term is its meaning to the ordinary artisan after reading the entire patent. Yet heavy reliance on the dictionary divorced from the intrinsic evidence risks transforming the meaning of the claim term to the artisan into the meaning of the term in the abstract, out of its particular context, which is the specification. The patent system is based on the proposition that claims cover only the invented subject matter. As the Supreme Court has stated, "[i]t seems to us that nothing can be more just and fair, both to the patentee and the public, than that the former should understand, and correctly describe, just what he has invented, and for what he claims a patent." *Merrill v. Yeomans*, 94 U.S. at 573-74. The use of a dictionary definition can conflict with that directive because the patent applicant did not create the dictionary to describe the invention. Thus, there may be a disconnect between the patentee's responsibility to describe and claim his invention, and the dictionary editors' objective

limited role to the specification requiring that any language in the specification inconsistent with our ruling is "the single best of a disputed term," and "acts as a dictionary defines terms used in the defines terms by implication." 383 F.3d at 1582; *Indeto Ac-Satellite Corp.*, 383 F.3d PQ2d 1678] (Fed. Cir. guidance is not provided in format, the specification terms by implication may be found in or as of the patent document); *Novartis v. Labs.*, 375 F.3d 1328, 1650] (Fed. Cir. 2004) *ork Servs., Inc. v. Covad p, Inc.*, 262 F.3d 1258, 865] (Fed. Cir. 2001) y be clearly redefined statement of redefinition

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of aggregating all possible definitions for particular words.

Although the *Texas Digital* line of cases permit the dictionary definition to be narrowed in some circumstances even when there is not an explicit disclaimer or redefinition in the specification, too often that line of cases has been improperly relied upon to condone the adoption of a dictionary definition entirely divorced from the context of the written description. The problem is that if the district court starts with the broad dictionary definition in every case and fails to fully appreciate how the specification implicitly limits that definition, the error will systematically cause the construction of the claim to be unduly expansive. The risk of systematic overbreadth is greatly reduced if the court instead focuses at the outset on how the patentee used the claim term in the claims, specification, and prosecution history, rather than starting with a broad definition and whittling it down.

Dictionaries, by their nature, provide an expansive array of definitions. General dictionaries, in particular, strive to collect all uses of particular words, from the common to the obscure. By design, general dictionaries collect the definitions of a term as used not only in a particular art field, but in many different settings. In such circumstances, it is inevitable that the multiple dictionary definitions for a term will extend beyond the "construction of the patent [that] is confirmed by the avowed understanding of the patentee, expressed by him, or on his behalf, when his application for the original patent was pending." *Goodyear Dental Vulcanite Co. v. Davis*, 102 U.S. 222, 227 (1880). Thus, the use of the dictionary may extend patent protection beyond what should properly be afforded by the inventor's patent. See *Smith v. Snow*, 294 U.S. 1, 14 (1935) ("if the claim were fairly susceptible of two constructions, that should be adopted which will secure to the patentee *his actual invention*") (emphasis added). For that reason, we have stated that "a general-usage dictionary cannot overcome art-specific evidence of the meaning" of a claim term. *Vanderlande Indus. Nederland*, 366 F.3d at 1321; see also *Renishaw*, 158 F.3d at 1250, quoting *Liescher v. Boothroyd*, 258 F.2d 948, 951 [119 USPQ 133] (CCPA 1958) ("Indiscriminate reliance on definitions found in dictionaries can often produce absurd results. . . . One need not arbitrarily pick and choose from the various

accepted definitions of a word to decide which meaning was intended as the word is used in a given claim. The subject matter, the context, etc., will more often than not lead to the correct conclusion.").

Even technical dictionaries or treatises, under certain circumstances, may suffer from some of these deficiencies. There is no guarantee that a term is used in the same way in a treatise as it would be by the patentee. In fact, discrepancies between the patent and treatises are apt to be common because the patent by its nature describes something novel. See *Autogiro*, 384 F.2d at 397 ("Often the invention is novel and words do not exist to describe it. The dictionary does not always keep abreast of the inventor. It cannot.").

Moreover, different dictionaries may contain somewhat different sets of definitions for the same words. A claim should not rise or fall based upon the preferences of a particular dictionary editor, or the court's independent decision, uninformed by the specification; to rely on one dictionary rather than another. Finally, the authors of dictionaries or treatises may simplify ideas to communicate them most effectively to the public and may thus choose a meaning that is not pertinent to the understanding of particular claim language. See generally Ellen P. Aprill, *The Law of the Word: Dictionary Shopping in the Supreme Court*, 30 Ariz. St. L.J. 275, 293-314 (1998). The resulting definitions therefore do not necessarily reflect the inventor's goal of distinctly setting forth his invention as a person of ordinary skill in that particular art would understand it.

As we have noted above, however, we do not intend to preclude the appropriate use of dictionaries. Dictionaries or comparable sources are often useful to assist in understanding the commonly understood meaning of words and have been used both by our court and the Supreme Court in claim interpretation. See *Exhibit Supply Co. v. Ace Patents Corp.*, 315 U.S. 126, 134 (1942) (relying on dictionaries to construe the claim term "embedded"); *Weber Elec. Co. v. E.H. Freeman Elec. Co.*, 256 U.S. 668, 678 (1921) (approving circuit court's use of dictionary definitions to define claim terms); *Renishaw*, 158 F.3d at 1247-53 (approving the use of dictionaries with proper respect for the role of intrinsic evidence). A dictionary definition has the value of being an unbiased source "acces-

sible to the public in advance of litigation." *Vitronics*, 90 F.3d at 1585. As we said in *Vitronics*, judges are free to consult dictionaries and technical treatises

at any time in order to better understand the underlying technology and may also rely on dictionary definitions when construing claim terms, so long as the dictionary definition does not contradict any definition found in or ascertained by a reading of the patent documents.

Id. at 1584 n.6.

We also acknowledge that the purpose underlying the *Texas Digital* line of cases—to avoid the danger of reading limitations from the specification into the claim—is sound. Moreover, we recognize that the distinction between using the specification to interpret the meaning of a claim and importing limitations from the specification into the claim can be a difficult one to apply in practice. See *Comark Communications, Inc. v. Harris Corp.*, 156 F.3d 1182, 1186-87 [48 USPQ2d 1001] (Fed. Cir. 1998) ("there is sometimes a fine line between reading a claim in light of the specification, and reading a limitation into the claim from the specification"). However, the line between construing terms and importing limitations can be discerned with reasonable certainty and predictability if the court's focus remains on understanding how a person of ordinary skill in the art would understand the claim terms. For instance, although the specification often describes very specific embodiments of the invention, we have repeatedly warned against confining the claims to those embodiments. See, e.g., *Nazomi Communications, Inc. v. ARM Holdings, PLC*, 403 F.3d 1364, 1369 [74 USPQ2d 1458] (Fed. Cir. 2005) (claims may embrace "different subject matter than is illustrated in the specific embodiments in the specification"); *Liebel-Flarsheim*, 358 F.3d at 906-08; *Teleflex*, 299 F.3d at 1327; *SRI Int'l v. Matsushita Elec. Corp. of Am.*, 775 F.2d 1107, 1121 [227 USPQ 577] (Fed. Cir. 1985). In particular, we have expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment. *Gemstar-TV Guide*, 383 F.3d at 1366. That is not just because section 112 of the Patent Act requires that the claims themselves set forth the limits of the patent grant, but also because persons of ordinary skill in the art rarely

would confine their definitions of terms to the exact representations depicted in the embodiments.

To avoid importing limitations from the specification into the claims, it is important to keep in mind that the purposes of the specification are to teach and enable those of skill in the art to make and use the invention and to provide a best mode for doing so. See *Spectra-Physics, Inc. v. Coherent, Inc.*, 827 F.2d 1524, 1533 [3 USPQ2d 1737] (Fed. Cir. 1987). One of the best ways to teach a person of ordinary skill in the art how to make and use the invention is to provide an example of how to practice the invention in a particular case. Much of the time, upon reading the specification in that context, it will become clear whether the patentee is setting out specific examples of the invention to accomplish those goals, or whether the patentee instead intends for the claims and the embodiments in the specification to be strictly coextensive. See *SciMed Life Sys.*, 242 F.3d at 1341. The manner in which the patentee uses a term within the specification and claims usually will make the distinction apparent. See *Snow v. Lake Shore & M.S. Ry. Co.*, 121 U.S. 617, 630 (1887) (it was clear from the specification that there was "nothing in the context to indicate that the patentee contemplated any alternative" embodiment to the one presented).

In the end, there will still remain some cases in which it will be hard to determine whether a person of skill in the art would understand the embodiments to define the outer limits of the claim term or merely to be exemplary in nature. While that task may present difficulties in some cases, we nonetheless believe that attempting to resolve that problem in the context of the particular patent is likely to capture the scope of the actual invention more accurately than either strictly limiting the scope of the claims to the embodiments disclosed in the specification or divorcing the claim language from the specification.

[5] In *Vitronics*, this court grappled with the same problem and set forth guidelines for reaching the correct claim construction and not imposing improper limitations on claims. 90 F.3d at 1582. The underlying goal of our decision in *Vitronics* was to increase the likelihood that a court will comprehend how a person of ordinary skill in the art would understand the claim terms. See *id.* at 1584. In that process, we recognized that there is no

initions of terms to the depicted in the embodiment.

limitations from the claims, it is important to purposes of the specification enable those of skill in the art to make and use the invention and to be able to do so. See *Coherent, Inc.*, 827 USPQ2d 1737 (Fed. Cir. 2003). Ways to teach a person in the art how to make and use the invention and to provide an example of the invention in a particular embodiment, upon reading the specification, it will become apparent that the patentee is setting out specifications to accomplish the invention instead of the embodiments in the specification strictly coextensive. See *F.3d* at 1341. The patentee uses a term within the specification that usually will make it clear. See *Snow v. Lake*, 121 U.S. 617, 630 (1887) (the specification that the context to indicate the invention any alternative one presented).

will still remain some of the hard to determine will in the art would understand the outer limits or merely to be exempted from that task may present problems, we nonetheless believe that the problem of the actual invention of the patent is likely to be strictly limiting is to the embodiments of the invention or divorcing the invention from the specification.

The court grappled with the fact that the guidelines for claim construction and the limitations on claims. The underlying goal of our case is to increase the likelihood that the person in the art would understand the invention. See *id.* at 1584. In this case, the court noted that there is no

magic formula or catechism for conducting claim construction. Nor is the court barred from considering any particular sources or required to analyze sources in any specific sequence, as long as those sources are not used to contradict claim meaning that is unambiguous in light of the intrinsic evidence. See *id.* at 1583-84; *Intel Corp. v. VIA Techs., Inc.*, 319 F.3d 1357, 1367 [65 USPQ2d 1934] (Fed. Cir. 2003). For example, a judge who encounters a claim term while reading a patent might consult a general purpose or specialized dictionary to begin to understand the meaning of the term, before reviewing the remainder of the patent to determine how the patentee has used the term. The sequence of steps used by the judge in consulting various sources is not important; what matters is for the court to attach the appropriate weight to be assigned to those sources in light of the statutes and policies that inform patent law. *Vitronics*, 90 F.3d at 1582. In *Vitronics*, we did not attempt to provide a rigid algorithm for claim construction, but simply attempted to explain why, in general, certain types of evidence are more valuable than others. Today, we adhere to that approach and reaffirm the approach to claim construction outlined in that case, in *Markman*, and in *Innova*. We now turn to the application of those principles to the case at bar.

IV

A

[6] The critical language of claim 1 of the '798 patent—"further means disposed inside the shell for increasing its load bearing capacity comprising internal steel baffles extending inwardly from the steel shell walls"—imposes three clear requirements with respect to the baffles. First, the baffles must be made of steel. Second, they must be part of the load-bearing means for the wall section. Third, they must be pointed inward from the walls. Both parties, stipulating to a dictionary definition, also conceded that the term "baffles" refers to objects that check, impede, or obstruct the flow of something. The intrinsic evidence confirms that a person of skill in the art would understand that the term "baffles," as used in the '798 patent, would have that generic meaning.

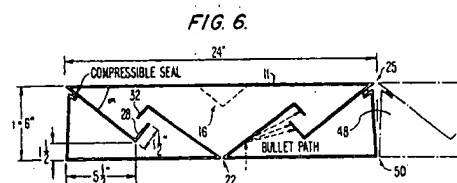
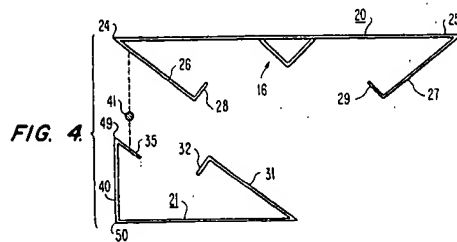
The other claims of the '798 patent specify particular functions to be served by the baffles. For example, dependent claim 2 states that the baffles may be "oriented with the

panel sections disposed at angles for deflecting projectiles such as bullets able to penetrate the steel plates." The inclusion of such a specific limitation on the term "baffles" in claim 2 makes it likely that the patentee did not contemplate that the term "baffles" already contained that limitation. See *Dow Chem. Co. v. United States*, 226 F.3d 1334, 1341-42 [56 USPQ2d 1014] (Fed. Cir. 2000) (concluding that an independent claim should be given broader scope than a dependent claim to avoid rendering the dependent claim redundant). Independent claim 17 further supports that proposition. It states that baffles are placed "projecting inwardly from the outer shell at angles tending to deflect projectiles that penetrate the outer shell." That limitation would be unnecessary if persons of skill in the art understood that the baffles inherently served such a function. See *TurboCare*, 264 F.3d at 1123 (claim terms should not be read to contain a limitation "where another claim restricts the invention in exactly the [same] manner"). Dependent claim 6 provides an additional requirement for the baffles, stating that "the internal baffles of both outer panel sections overlap and interlock at angles providing deflector panels extending from one end of the module to the other." If the baffles recited in claim 1 were inherently placed at specific angles, or interlocked to form an intermediate barrier, claim 6 would be redundant.

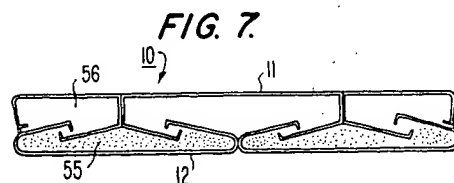
The specification further supports the conclusion that persons of ordinary skill in the art would understand the baffles recited in the '798 patent to be load-bearing objects that serve to check, impede, or obstruct flow. At several points, the specification discusses positioning the baffles so as to deflect projectiles. See '798 patent, col. 2, ll. 13-15; *id.*, col. 5, ll. 17-19. The patent states that one advantage of the invention over the prior art is that "[t]here have not been effective ways of dealing with these powerful impact weapons with inexpensive housing." *Id.*, col. 3, ll. 28-30. While that statement makes clear the invention envisions baffles that serve that function, it does not imply that in order to qualify as baffles within the meaning of the claims, the internal support structures must serve the projectile-deflecting function in all the embodiments of all the claims. The specification must teach and enable all the claims, and the section of the written description discussing the use of baffles to

deflect projectiles serves that purpose for claims 2, 6, 17, and 23, which specifically claim baffles that deflect projectiles. *See In re Wright*, 999 F.2d 1557, 1561 [27 USPQ2d 1510] (Fed. Cir. 1993).

The specification discusses several other purposes served by the baffles. For example, the baffles are described as providing structural support. The patent states that one way to increase load-bearing capacity is to use "at least in part inwardly directed steel baffles 15, 16." '798 patent, col. 4, ll. 14-15. The baffle 16 is described as a "strengthening triangular baffle." *Id.*, col. 4, line 37. Importantly, Figures 4 and 6 do not show the baffles as part of an "intermediate interlocking, but not solid, internal barrier." In those figures, the baffle 16 simply provides structural support for one of the walls, as depicted below:



Other uses for the baffles are listed in the specification as well. In Figure 7, the overlapping flanges "provide for overlapping and interlocking the baffles to produce substantially an intermediate barrier wall between the opposite [wall] faces":



'798 patent, col. 5, ll. 26-29. Those baffles thus create small compartments that can be filled with either sound and thermal insulation

or rock and gravel to stop projectiles. *Id.*, col. 5, ll. 29-34. By separating the interwall area into compartments (see, e.g., compartment 55 in Figure 7), the user of the modules can choose different types of material for each compartment, so that the module can be "easily custom tailored for the specific needs of each installation." *Id.*, col. 5, ll. 36-37. When material is placed into the wall during installation, the baffles obstruct the flow of material from one compartment to another so that this "custom tailoring" is possible.

The fact that the written description of the '798 patent sets forth multiple objectives to be served by the baffles recited in the claims confirms that the term "baffles" should not be read restrictively to require that the baffles in each case serve all of the recited functions. We have held that "[t]he fact that a patent asserts that an invention achieves several objectives does not require that each of the claims be construed as limited to structures that are capable of achieving all of the objectives." *Liebel-Flarsheim*, 358 F.3d at 908; *see also Resonate Inc. v. Altheon Websystems, Inc.*, 338 F.3d 1360, 1367 [67 USPQ2d 1771] (Fed. Cir. 2003). Although deflecting projectiles is one of the advantages of the baffles of the '798 patent, the patent does not require that the inward extending structures always be capable of performing that function. Accordingly, we conclude that a person of skill in the art would not interpret the disclosure and claims of the '798 patent to mean that a structure extending inward from one of the wall faces is a "baffle" if it is at an acute or obtuse angle, but is not a "baffle" if it is disposed at a right angle.

B

Invoking the principle that "claims should be so construed, if possible, as to sustain their validity," *Rhine v. Casio, Inc.*, 183 F.3d 1342, 1345 [51 USPQ2d 1377] (Fed. Cir. 1999), AWH argues that the term "baffles" should be given a restrictive meaning because if the term is not construed restrictively, the asserted claims would be invalid.

[7] While we have acknowledged the maxim that claims should be construed to preserve their validity, we have not applied that principle broadly, and we have certainly not endorsed a regime in which validity analysis is a regular component of claim construction. *See Nazomi Communications*, 403 F.3d at 1368-69. Instead, we have limited the maxim

ck and gravel to stop projectiles. *Id.*, col. 29-34. By separating the interwall area compartments (see, e.g., compartment 55 figure 7), the user of the modules can use different types of material for each compartment, so that the module can be "easily custom tailored for the specific needs of installation." *Id.*, col. 5, ll. 36-37. When material is placed into the wall during installation, the baffles obstruct the flow of material from one compartment to another so that this custom tailoring is possible.

It is a fact that the written description of the patent sets forth multiple objectives to be achieved by the baffles recited in the claims construing that the term "baffles" should not be construed restrictively to require that the baffles in the case serve all of the recited functions. We have held that "[t]he fact that a patent asserts that an invention achieves several objectives does not require that each of the claims be construed as limited to structures that are capable of achieving all of the objectives." *Liebel-Flarsheim*, 358 F.3d at 908; *see also* *Alteon Websystems, Inc. v. O.U.R. Scientific Int'l, Inc.*, 338 F.3d 1360, 1367 [67 USPQ2d 1771] (Fed. Cir. 2000). Although deflecting projectiles is one of the advantages of the baffles of the '798 patent, the patent does not require that the inter-extending structures always be capable of forming that function. Accordingly, we construe that a person of skill in the art would interpret the disclosure and claims of the patent to mean that a structure extending from one of the wall faces is a "baffle" if it is at an acute or obtuse angle, but not a "baffle" if it is disposed at a right

B

Applying the principle that "claims should be construed, if possible, as to sustain their validity," *Rhine v. Casio, Inc.*, 183 F.3d 1342, 1347 [51 USPQ2d 1377] (Fed. Cir. 1999), we argue that the term "baffles" should be construed restrictively because if the claims are not construed restrictively, the asserted claim would be invalid.

While we have acknowledged the principle that claims should be construed to preserve their validity, we have not applied that principle broadly, and we have certainly not established a regime in which validity analysis is a regular component of claim construction. *Amazomi Communications*, 403 F.3d at 1319. Instead, we have limited the maxim

to cases in which "the court concludes, after applying all the available tools of claim construction, that the claim is still ambiguous." *Liebel-Flarsheim*, 358 F.3d at 911; *see also* *Generation II Orthotics Inc. v. Med. Tech. Inc.*, 263 F.3d 1356, 1365 [59 USPQ2d 1919] (Fed. Cir. 2001) ("[C]laims can only be construed to preserve their validity where the proposed claim construction is 'practicable,' is based on sound claim construction principles, and does not revise or ignore the explicit language of the claims."); *Elektro Instrument S.A. v. O.U.R. Scientific Int'l, Inc.*, 214 F.3d 1302, 1309 [54 USPQ2d 1910] (Fed. Cir. 2000) ("having concluded that the amended claim is susceptible of only one reasonable construction, we cannot construe the claim differently from its plain meaning in order to preserve its validity"); *E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 1434 [7 USPQ2d 1129] (Fed. Cir. 1988) (rejecting argument that limitations should be added to claims to preserve the validity of the claims). In such cases, we have looked to whether it is reasonable to infer that the PTO would not have issued an invalid patent, and that the ambiguity in the claim language should therefore be resolved in a manner that would preserve the patent's validity.

That is the rationale that gave rise to the maxim in the first place. In *Klein v. Russell*, 86 U.S. (19 Wall.) 433, 466 (1873), the owner of a reissued patent argued for a narrow construction of the patent, while the accused infringer argued for a broader construction. The Court noted that the law "required that the reissue should be for the same invention as the original patent." *Id.* Because the reissue, which was granted under the predecessor to 35 U.S.C. § 251, would have been improper under the broader construction, the Court "presumed the Commissioner did his duty" and did not issue an invalid patent. For that reason, among others, the Court construed the disputed claim language in a manner that "sustain[ed] the patent and the construction claimed by the patentee," since that "can be done consistently with the language which he has employed." *Id.* The applicability of the doctrine in a particular case therefore depends on the strength of the inference that the PTO would have recognized that one claim interpretation would render the claim invalid, and that the PTO would not have issued the patent

assuming that to be the proper construction of the term.

In this case, unlike in *Klein* and other cases in which the doctrine of construing claims to preserve their validity has been invoked, the claim term at issue is not ambiguous. Thus, it can be construed without the need to consider whether one possible construction would render the claim invalid while the other would not. The doctrine of construing claims to preserve their validity, a doctrine of limited utility in any event, therefore has no applicability here.

In sum, we reject AWH's arguments in favor of a restrictive definition of the term "baffles." Because we disagree with the district court's claim construction, we reverse the summary judgment of noninfringement. In light of our decision on claim construction, it is necessary to remand the infringement claims to the district court for further proceedings.

V

With respect to Mr. Phillips's allegation of misappropriation of trade secrets, we agree with the panel's decision upholding the district court's ruling on that issue, in which the district court dismissed the trade secret claim on statute of limitations grounds. *See Phillips*, 363 F.3d at 1214-1216. Accordingly, based on the panel's disposition of that issue, we affirm the district court's dismissal of the trade secret claim. With respect to AWH's cross-appeal, we also agree with the panel's reasoning and its conclusion that the cross-appeal is improper. *See id.* at 1216. We therefore dismiss the cross-appeal.

VI

In our order granting rehearing en banc, we asked the parties to brief various questions, including the following: "Consistent with the Supreme Court's decision in *Markman v. Westview Instruments*, 517 U.S. 370 [38 USPQ2d 1461] (1996), and our en banc decision in *Cybor Corp. v. FAS Technologies, Inc.*, 138 F.3d 1448 [46 USPQ2d 1169] (Fed. Cir. 1998), is it appropriate for this court to accord any deference to any aspect of trial court claim construction rulings? If so, on what aspects, in what circumstances, and to what extent?" After consideration of the matter, we have decided not to address that issue at this time. We therefore leave undisturbed our prior en banc decision in *Cybor*.

Each party shall bear its own costs for this appeal.

AFFIRMED IN PART, REVERSED IN PART, DISMISSED IN PART, and REMANDED.

Lourie, J., with whom Newman, J., joins, concurring in part and dissenting in part.

I fully join the portion of the court's opinion resolving the relative weights of specification and dictionaries in interpreting patent claims, in favor of the specification. I could elaborate more expansively on that topic, but Judge Bryson's opinion for the majority says it so well, there is little reason for me to repeat its truths. I also agree with the court that claims need not necessarily be limited to specific or preferred embodiments in the specification, although they are limited to what is contained in the overall disclosure of the specification.

However, I do dissent from the court's decision to reverse and remand the district court's decision. The original panel decision of this court, which implicitly decided the case based on the priorities that the en banc court has now reaffirmed, interpreted the claims in light of the specification and found that the defendant did not infringe the claims. We affirmed the district court, which had arrived at a similar conclusion. The dissent from the panel decision relied on the "dictionaries first" procedure, which the court now has decided not to follow. Thus, while the claim construction issue had to be decided by the en banc court, I see no reason for the court, having reaffirmed the principle on which the district judge and the panel originally decided the case, to send it back for further review.

The court premises its reverse-and-remand decision on the concept of claim differentiation and the reasoning that the contested term "baffle" need not fulfill all of the functions set out for it in the specification. Reasonable people can differ on those points. However, the court did not take this case en banc because the full court differed with the panel majority on those disputable criteria. It did so to resolve the claim construction issue, which it has now done so well. Having done so, I believe that it should simply affirm the district court's decision on the merits, consistently with that court's rationale and that of the panel

that affirmed the district court, which it now adopts.

I will not critique in detail particular statements the majority makes in rationalizing its reversal of the district court's decision, such as "that a person of skill in the art would not interpret the disclosure and claims of the '798 patent to mean that a structure extending inward from one of the wall faces is a 'baffle' if it is at an acute or obtuse angle, but is not a 'baffle' if it is disposed at a right angle," or that "the patent does not require that the inward extending structures always be capable of performing that function [deflecting projectiles]" in order to be considered 'baffles'.

I will simply point out that the specification contains no disclosure of baffles at right angles. Moreover, as the majority correctly states, a patent specification is intended to describe one's invention, and it is essential to read a specification in order to interpret the meaning of the claims. This specification makes clear that the "baffles" in this invention are angled. There is no reference to baffles that show them to be other than angled. The abstract refers to "bullet deflecting ... baffles." Only angled baffles can deflect. It then mentions "internal baffles at angles for deflecting bullets." That could not be clearer. The specification then refers several times to baffles, often to figures in the drawings, all of which are to angled baffles. A compelling point is that the only numbered references to baffles (15, 16, 26, 27, 30, and 31) all show angled baffles.

The specification further states that steel panels "form the internal baffles at angles for deflecting bullets." It states that the baffles are "disposed at such angles that bullets which might penetrate the outer steel panels are deflected." It explains that if bullets "were to penetrate the outer steel wall, the baffles are disposed at angles which tend to deflect the bullets." There is no specific reference in this patent to a baffle that is not angled at other than 90°.

While, as the majority states, the specification indicates that multiple objectives are achieved by the invention, none of the other objectives is dependent upon whether the baffles are at other than a 90° angle, whereas the constantly stated objective of deflection of bullets is dependent upon such an angle.

Finally, even though claim construction is a question of law, reviewable by this court with-

ict court, which it now

n detail particular state-
akes in rationalizing its
t court's decision, such
kill in the art would not
e and claims of the '798
structure extending in-
wall faces is a 'baffle' if
tuse angle, but is not a
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out formal deference, I do believe that we
ought to lean toward affirmance of a claim
construction in the absence of a strong convic-
tion of error. I do not have such a conviction
in this case, after considering the district
court's opinion and the patent specification.

For these reasons, while I wholeheartedly
join the majority opinion in its discussion and
resolution of the "specification v. dictionar-
ies" issue, I would affirm the decision below.

**Mayer, J., with whom Newman, J., joins,
dissenting.**

Now more than ever I am convinced of the
futility, indeed the absurdity, of this court's
persistence in adhering to the falsehood that
claim construction is a matter of law devoid of
any factual component. Because any attempt
to fashion a coherent standard under this re-
gime is pointless, as illustrated by our many
failed attempts to do so, I dissent.

This court was created for the purpose of
bringing consistency to the patent field. See
H.R. Rep. No. 312, 97th Cong., 1st Sess.
20-23 (1981). Instead, we have taken this
noble mandate, to reinvigorate the patent and
introduce predictability to the field, and fo-
cused inappropriate power in this court. In our
quest to elevate our importance, we have,
however, disregarded our role as an appellate
court; the resulting mayhem has seriously un-
dermined the legitimacy of the process, if not
the integrity of the institution.

In the name of uniformity, *Cybor Corp. v.
FAS Technologies, Inc.*, 138 F.3d 1448 [46
USPQ2d 1169] (Fed. Cir. 1998) (en banc),
held that claim construction does not involve
subsidiary or underlying questions of fact and
that we are, therefore, unbridled by either the
expertise or efforts of the district court.¹ What
we have wrought, instead, is the substitution
of a black box, as it so pejoratively has been
said of the jury, with the black hole of this
court. Out of this void we emit "legal" pro-
nouncements by way of "interpretive necro-

¹ The Supreme Court did not suggest in affirming
Markman v. Westview Instruments, Inc., 52 F.3d 967
[34 USPQ2d 1321] (1995) (en banc), that claim con-
struction is a purely legal question. 517 U.S. 370 [38
USPQ2d 1461] (1996). It held only that, as a policy
matter, the judge, as opposed to the jury, should deter-
mine the meaning of a patent claim. See *Cybor*, 138
F.3d at 1464 (Mayer, C.J., dissenting) (explaining that
"the [Supreme] Court chose not to accept our formula-
tion of claim construction: as a pure question of law to
be decided de novo in all cases on appeal").

mancy"²; these rulings resemble reality, if at
all, only by chance. Regardless, and with a
blind eye to the consequences, we continue to
struggle under this irrational and reckless re-
gime, trying every alternative—dictionaries
first, dictionaries second, never dictionaries,
etc., etc., etc.

Again today we vainly attempt to establish
standards by which this court will interpret
claims. But after proposing no fewer than
seven questions, receiving more than thirty
amici curiae briefs, and whipping the bar into
a frenzy of expectation, we say nothing new,
but merely restate what has become the prac-
tice over the last ten years—that we will de-
cide cases according to whatever mode or
method results in the outcome we desire, or at
least allows us a seemingly plausible way out
of the case. I am not surprised by this. Indeed,
there can be no workable standards by which
this court will interpret claims so long as we
are blind to the factual component of the task.
See *Cooter & Gell v. Hartmarx Corp.*, 496
U.S. 384, 405 (1990) ("Fact-bound resolu-
tions cannot be made uniform through appel-
late review, de novo or otherwise." (quoting
Mars Steel Corp. v. Cont'l Bank N.A., 880
F.2d 928, 936 (7th Cir. 1989))).³

Federal Rule of Civil Procedure 52(a) states
that "[f]indings of fact . . . shall not be set
aside unless clearly erroneous, and due regard
shall be given to the opportunity of the trial
court to judge of the credibility of witnesses."
According to the Supreme Court, this "[r]ule
means what it says"—that findings of fact,
even "those described as 'ultimate facts' be-
cause they may determine the outcome of liti-
gation," are to be reviewed deferentially on
appeal.⁴ *Bose Corp. v. Consumers Union of*

² See *The Holmes Group, Inc. v. Vornado Air Circu-
lation Sys., Inc.*, 535 U.S. 826, 833 [62 USPQ2d 1801]
(2002).

³ The question asked but not answered by the court
which might have allowed it to cure its self-inflicted
wound was: "Question 7. Consistent with the Supreme
Court's decision in *Markman v. Westview Instruments,
Inc.*, 517 U.S. 370 [38 USPQ2d 1461] (1996) and our
en banc decision in *Cybor Corp. v. FAS Technologies,
Inc.*, 138 F.3d 1448 [46 USPQ2d 1169] (Fed. Cir.
1998), is it appropriate for this court to accord any de-
ference to any aspect of trial court claim construction
rulings? If so, on what aspects, in what circumstances,
and to what extent?"

⁴ Because some facts are so intertwined with a con-
stitutional standard the Supreme Court has held that *de
novo* review is appropriate. For example, whether a de-
fendant has acted with actual malice in a defamation

United States, 466 U.S. 485, 498 & 501 (1984); see also *Anderson v. Bessemer City*, 470 U.S. 564, 575 (1985) ("[R]eview of factual findings under the clearly-erroneous standard—with its deference to the trier of fact—is the rule, not the exception."); *Pullman-Standard v. United Steel Workers of Am.*, 456 U.S. 273, 287 [76 USPQ 430] (1982) ("Rule 52(a) broadly requires that findings of fact not be set aside unless clearly erroneous."); *United States v. United States Gypsum Co.*, 333 U.S. 364, 394 (1948). Even those findings of fact based entirely on documentary evidence are entitled to deference. *Anderson*, 470 U.S. at 574 ("That [Rule 52(a)] goes on to emphasize the special deference to be paid credibility determinations does not alter its clear command: Rule 52(a) 'does not make exceptions or purport to exclude certain categories of factual findings from the obligation of a court of appeals to accept a district court's findings unless clearly erroneous.'") (quoting *Pullman-Standard*, 456 U.S.

suit is reviewed *de novo* because, among other reasons, the scope of the First Amendment is shaped and applied by reference to such factual determinations. *Bose*, 466 U.S. at 502 ("[T]he content of the rule is not revealed simply by its literal text, but rather is given meaning through the evolutionary process of common-law adjudication."). Similarly, whether there is reasonable suspicion to conduct an investigatory stop or probable cause to perform a search under the Fourth Amendment are reviewed without deference. *Ornelas v. United States*, 517 U.S. 690, 696 (1996) (holding that the protections afforded by the Fourth Amendment are "fluid concepts that take their substantive content from the particular contexts in which the standards are being assessed"). The reasoning behind these limited exceptions surely does not apply to claim construction. While appearing from the perspective of this court's limited sphere of influence to be dreadfully important, claim construction does not implicate a constitutional value. *Cf. Bose*, 466 U.S. at 502 ("[T]he constitutional values protected by the rule make it imperative that judges—and in some cases judges of [the Supreme] Court—make sure that it is correctly applied."). This is illustrated by the fact that the outcome of a patent case, unlike a defamation or illegal search case, has little impact on how future cases are decided or on how future parties behave. *Cf. id.* at 501 n.17 ("Regarding certain largely factual questions in some areas of the law, the stakes—in terms of impact on future cases and future conduct—are too great to entrust them finally to the judgment of the trier of fact."). Even if claim construction did implicate a constitutional value, it, unlike the decisions underlying the First and Fourth Amendments, could readily be reduced, when distinguished from its factual underpinnings, to "a neat set of legal rules." *Ornelas*, 517 U.S. at 695-96 (quoting *Ill. v. Gates*, 462 U.S. 213, 232 (1983)).

at 287)). In short, we are obligated by Rule 52(a) to review the factual findings of the district court that underlie the determination of claim construction for clear error.

While this court may persist in the delusion that claim construction is a purely legal determination, unaffected by underlying facts, it is plainly not the case. Claim construction is, or should be, made in context: a claim should be interpreted both from the perspective of one of ordinary skill in the art and in view of the state of the art at the time of invention. See *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1477 [45 USPQ2d 1429] (Fed. Cir. 1998) ("It is the person of ordinary skill in the field of the invention through whose eyes the claims are construed."). These questions, which are critical to the correct interpretation of a claim, are inherently factual. They are hotly contested by the parties, not by resort to case law as one would expect for legal issues, but based on testimony and documentary evidence.⁵ During so called *Markman* "hearings," which are often longer than jury trials, parties battle over experts offering conflicting evidence regarding who qualifies as one of ordinary skill in the art; the meaning of patent terms to that person; the state of the art at the time of the invention; contradictory dictionary definitions and which would be consulted by the skilled artisan; the scope of specialized terms; the problem a patent was solving; what is related or pertinent art; whether a construction was disallowed during prosecution; how one of skill in the art would understand statements during prosecution; and on and on. In order to reconcile the parties' inconsistent submissions and arrive at a sound interpretation, the district court is required to sift through and weigh volumes of evidence. While this court treats the district court as an intake clerk, whose only role is to collect, shuffle and collate evidence, the reality, as revealed by conventional practice, is far different.

Even if the procedures employed by the district court did not show that it is engaging

⁵ That most of the cases now appealed to this court are "summary judgments" is irrelevant. We have artificially renamed findings of fact as legal conclusions; the district courts have dutifully conformed to our fictional characterization, but this does not change the inherent nature of the inquiry. Of course, if the parties do not dispute the material facts, summary judgment is appropriate.

). In short, we are obligated by Rule 52(a) to review the factual findings of the district court that underlie the determination of claim construction for clear error.

Even if this court may persist in the delusion that claim construction is a purely legal determination, unaffected by underlying facts, it is not the case. Claim construction is, or at least can be, made in context: a claim should be construed both from the perspective of one of ordinary skill in the art and in view of the state of the art at the time of invention. See *Armstrong Desiccants, Inc. v. Medzam, Ltd.*, 708 F.2d 1473, 1477 [45 USPQ2d 1429] (Fed. Cir. 1983) ("It is the person of ordinary skill in the art whose field of the invention through whose eyes the claims are construed."). These questions, which are critical to the correct interpretation of a claim, are inherently factual. They are not contested by the parties, not by the law, but based on testimony and documentation.⁵ During so called *Markman* hearings, which are often longer than jury trials, parties battle over experts offering conflicting evidence regarding who qualifies as one of ordinary skill in the art; the meaning of particular terms to that person; the state of the art at the time of the invention; contradictory definitions and which would be given to the skilled artisan; the scope of the claim; the problem a patent was solving; what is related or pertinent art; whether a claim was disallowed during prosecution; whether one of skill in the art would understand the claim during prosecution; and on and on. In order to reconcile the parties' inconsistent submissions and arrive at a sound construction, the district court is required to sift through and weigh volumes of evidence. The district court treats the district court as an umpire, whose only role is to collect, analyze, and collate evidence, the reality, as revealed by conventional practice, is far different.

Even if the procedures employed by the district court did not show that it is engaging in

most of the cases now appealed to this court, "the district court's findings of fact as legal conclusions; the courts have dutifully conformed to our fictional construction, but this does not change the inherent nature of the inquiry. Of course, if the parties do not dispute the material facts, summary judgment is appropriate."

in factfinding, the nature of the questions underlying claim construction illustrate that they are factual and should be reviewed in accordance with Rule 52(a). For each patent, for example, who qualifies as one of ordinary skill in the art will differ, just as the state of the art at the time of invention will differ. These subsidiary determinations are specific, multifarious and not susceptible to generalization; as such their resolution in one case will bear very little, if at all, on the resolution of subsequent cases. See *Ornelas*, 517 U.S. at 703 ("Law clarification requires generalization, and some issues lend themselves to generalization much more than others."); *Pierce v. Underwood*, 487 U.S. 552, 561-62 (1988) ("Many questions that arise in litigation are not amenable to regulation by rule because they involve multifarious, fleeting, special, narrow facts that utterly resist generalization." (quoting Maurice Rosenberg, *Judicial Discretion of the Trial Court, Viewed from Above*, 22 Syracuse L. Rev. 635, 662 (1971))); *Icicle Seafoods, Inc. v. Worthington*, 475 U.S. 709, 714 (1986) (rejecting *de novo* review of factual questions, even when outcome determinative). That the determination of the meaning of a particular term in one patent will not necessarily bear on the interpretation of the same term in a subsequent patent illustrates this point; while the term is the same, the underlying factual context is different. It further proves that these questions (e.g., who qualifies as one of ordinary skill in the art and what was the state of the art at the time of invention, among others) are implicitly being determined in each case; because we refuse to acknowledge either their existence or importance, however, the manner of their resolution is never elucidated. Finally, that claim construction is dependent on underlying factual determinations has been verified by our experience, which shows that reviewing these questions *de novo* has not clarified the law, but has instead "distort[ed] the appellate process," causing confusion among the district courts and bar. See *Cooter*, 496 U.S. at 404 (quoting *Pierce*, 487 U.S. at 561); see also *Koon v. United States*, 518 U.S. 81, 99 (1996).

Our purely *de novo* review of claim interpretation also cannot be reconciled with the Supreme Court's instructions regarding obviousness. While ultimately a question of law, obviousness depends on several underlying factual inquiries. *Graham v. John Deere Co.*,

383 U.S. 1, 17 [148 USPQ 459] (1966); see also *Dennison Mfg. Co. v. Panduit Corp.*, 475 U.S. 809, 811 [229 USPQ 478] (1986) (holding that Rule 52(a) requires that the district court's subsidiary factual determinations should be reviewed for clear error); cf. *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 336 U.S. 271, 275 [80 USPQ 451] (1949) (holding that validity, while ultimately a question of law, is founded on factual determinations that are entitled to deference). "Under [section] 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved." *Graham*, 383 U.S. at 17.

To a significant degree, each of these factual inquiries is also necessary to claim construction. Before beginning claim construction, "the scope and content of the prior art [should] be determined," *id.*, to establish context. The "differences between the prior art and the claims at issue [should] be ascertained," *id.*, to better define what the inventor holds out as the invention. And, the foundation for both the obviousness and claim construction determinations is "the level of ordinary skill in the pertinent art." *Id.*; see *Multi-form*, 133 F.3d at 1477. These underlying factual considerations receive the level of deference due under Rule 52(a) when considering obviousness, but they are scrutinized *de novo* in the claim construction context. As directed by the Supreme Court, however, it is especially important in the patent field, "where so much depends upon familiarity with specific scientific problems and principles not usually contained in the general storehouse of knowledge and experience," to give deference to the district court's findings of fact. *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 609-10 [85 USPQ 328] (1950).

While the court flails about in an attempt to solve the claim construction "conundrum," the solution to our plight is straightforward. We simply must follow the example of every other appellate court, which, regarding the vast majority of factual questions, reviews the trial court for clear error.⁶ This equilibrium did not come about as the result of chance or permissive appellate personalities, but be-

⁶ While jurisprudentially sound, the bar also supports this proposition, as evident by the many *amici curiae* briefs urging adherence to Rule 52(a).

cause two centuries of experience has shown that the trial court's factfinding ability is "unchallenged." *Salve Regina Coll. v. Russell*, 499 U.S. 225, 233 (1991); *Inwood*, 456 U.S. at 856 ("Determining the weight and credibility of the evidence is the special province of the trier of fact."). Time has similarly revealed that it is more economical for the district court to find facts. *Pierce*, 487 U.S. at 560 ("Moreover, even where the district judge's full knowledge of the factual setting can be acquired by the appellate court, that acquisition will often come at unusual expense, requiring the court to undertake the unaccustomed task of reviewing the entire record . . .").

Therefore, not only is it more efficient for the trial court to construct the record, the trial court is *better*, that is, more accurate, by way of both position and practice, at finding facts than appellate judges. *Anderson*, 470 U.S. at 574 ("The rationale for deference to the original finder of fact is not limited to the superiority of the trial judge's position to make determinations of credibility. The trial judge's major role is the determination of fact, and with experience on fulfilling that role comes expertise."); *Zenith Radio Corp. v. Hazeltine Research, Inc.*, 395 U.S. 100, 123 [161 USPQ 577] (1969). Our rejection of this fundamental premise has resulted, not surprisingly, in several serious problems, including increased litigation costs, needless consumption of judicial resources, and uncertainty, as well as diminished respect for the court and less "decisional accuracy." *Salve*, 499 U.S. at 233. We should abandon this unsound course.⁷

If we persist in deciding the subsidiary factual components of claim construction without deference, there is no reason why litigants should be required to parade their evidence before the district courts or for district courts to waste time and resources evaluating such evidence. It is excessive to require parties, who "have already been forced to concentrate their energies and resources on persuading the trial judge that their account of the facts is the correct one," to "persuade three more judges at the appellate level." *Anderson*, 470 U.S. at 575. If the proceedings before the district court are merely a "tryout on the road," *id.* (quoting *Wainwright v. Sykes*, 433 U.S. 72, 90

(1977)), as they are under our current regimen, it is wasteful to require such proceedings at all. Instead, all patent cases could be filed in this court; we would determine whether claim construction is necessary, and, if so, the meaning of the claims. Those few cases in which claim construction is not dispositive can be remanded to the district court for trial. In this way, we would at least eliminate the time and expense of the charade currently played out before the district court.

Eloquent words can mask much mischief. The court's opinion today is akin to rearranging the deck chairs on the Titanic—the orchestra is playing as if nothing is amiss, but the ship is still heading for Davey Jones' locker.

Faegre & Benson LLP v. Purdy

U.S. District Court
District of Minnesota

No. 03-6472 (MJD/JGL)

Decided April 27, 2005

TRADEMARKS AND UNFAIR TRADE PRACTICES

[1] Types of marks — Trade dress as mark — Labeling and appearance of goods (§ 327.0704)

Infringement; conflicts between marks — Likelihood of confusion — Particular marks — Confusion not likely (§ 335.0304.05)

Defendant's Web pages are not confusingly similar to trade dress for plaintiff law firm's Web site, even though defendant's sites contain exact copies of portions of plaintiff's trade dress, since defendant's sites do not offer legal services, and there is no clear evidence of actual confusion, since defendant's sites do not employ domain names that are confusingly similar to law firm's trademarks, since defendant's inclusion of parody disclaimers weigh against finding that he intends to pass off his Web pages as affiliated with plaintiff, since defendant's pages display graphic photographs and include clear criticism of plaintiff's alleged position on abortion and its actions in present litigation, and such content is not similar to or related to any con-

⁷ There are some scenarios where it is difficult to weed facts from law, see *Pullman-Standard*, 456 U.S. at 288, but claim construction is not one of them.

Serial No.: 09/639,508

Art Unit: 3724

APPENDIX E

EXHIBIT B

FIG. 18

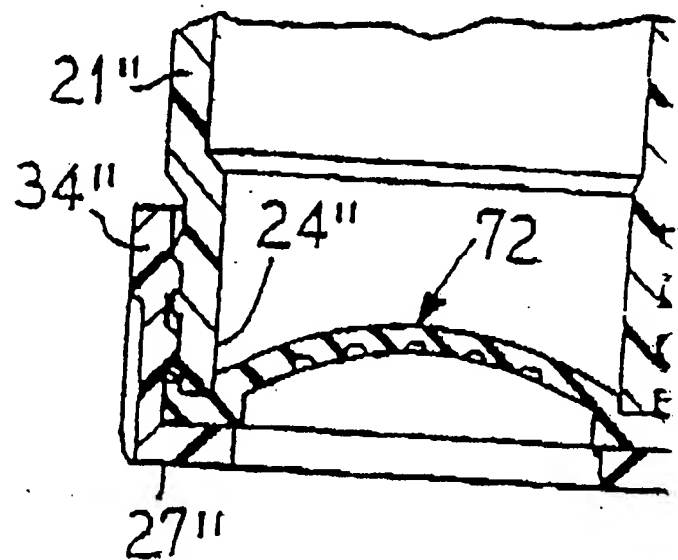


FIG. 17

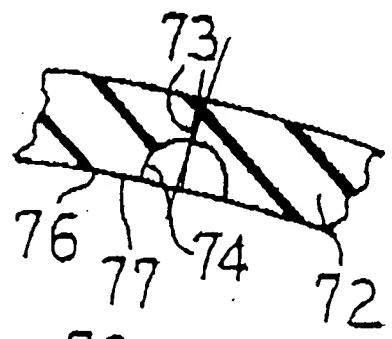


FIG. 19

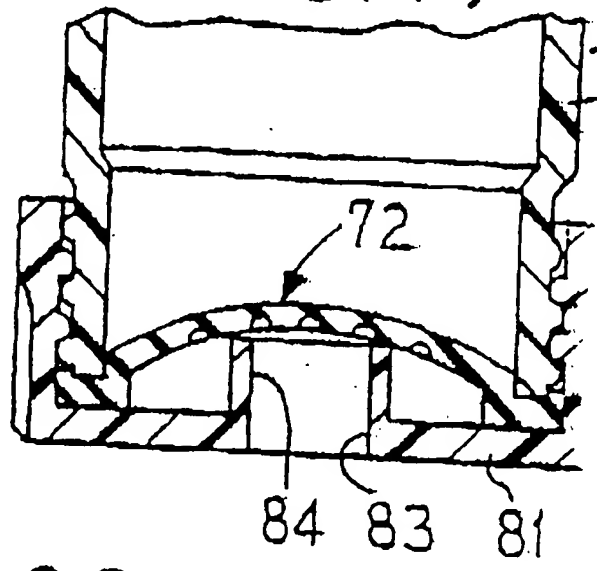


FIG. 20

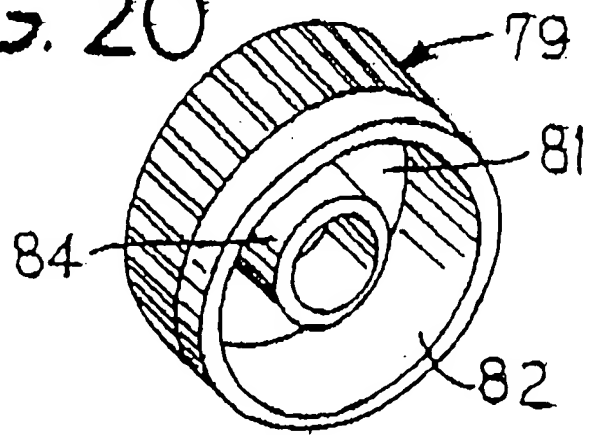
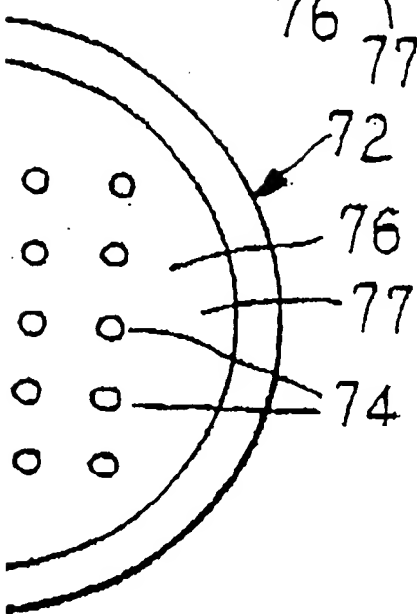
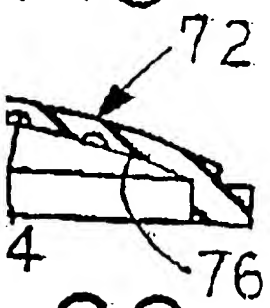


FIG. 21

15



16



22



Serial No.: 09/639,508

Art Unit: 3724

APPENDIX F

CONFIDENTIAL AND PRIVILEGEDEXHIBIT II
3/28/2000

460.1891USU

DECLARATION OF FRANCIS X. MANGANIELLO

I, Francis X. Manganiello, hereby declare as follows:

1. I graduated from Northeastern University with a degree in mechanical engineering in 1965. Since then, I have been employed as a mechanical engineer.
2. From 1965 to 1985, I was employed by The Gillette Company as a Senior Project Engineer. My primary responsibilities were to design and develop a wide range of personal care products.
3. From 1985 to 1995, I was Director and Vice President, Design Engineering of Pre-School Toys at Hasbro, Inc.
4. Since January of 1995, I have been employed by Playtex Products, Inc. ("Playtex") as the Director of Research and Development of the Infant Care business.
5. I have approximately five years of experience in the area of venting baby feeding bottles to allow air to flow into the bottle to alleviate the vacuum created in the bottle during feeding. I am a named inventor in four U.S. patents. One patent relates to the venting of baby feeding bottles. I consider myself to be an expert in the venting of baby feeding bottles.

6. Playtex is the assignee of U.S. Patent Application Serial No. 09/209,070, filed December 10, 1998 (the "Application"), and U.S. Provisional Application 60/069,083 filed December 10, 1997 (the "Provisional") on which the Application claims priority.

7. I am familiar with the Application and the Provisional (hereafter collectively referred to as "the Applications").

8. I am also familiar with U.S. Patent No. 5,499,729, filed March 15, 1994, and assigned to Greenwood et al on March 19, 1996 (the Patent).

9. Playtex has been licensed under the Patent since its issuance.

10. Prior to my employment with Playtex, Mr. Greenwood, an inventor of the Patent, came to Playtex and disclosed his technology to Playtex. After I joined Playtex, I spoke with him by phone approximately four times.

11. Mr. Greenwood provided Playtex with about 1000 domed vent discs. Each vent disc had 36 domed depressions in its underside. The residual material of the vent discs above some of the depressions was punctured through. He told me the puncture holes were made one at a time by hand using a push pin (a pin with a pointed tip with an axially aligned cylindrical head). He never disclosed to me or Playtex any other way, means or system to puncture, pierce or perforate vent discs.

12. At no time did Mr. Greenwood disclose or suggest to me or Playtex that the puncture holes or perforations through the residuals of the vent discs should be perpendicular to the surface to be pierced, or, along or coincident with radii that form the curvature of the domed portion of the discs.

13. At no time did Mr. Greenwood disclose or suggest to me or Playtex that the center lines of the depressions were or were to be coincident with radii that form the dome curvature of the discs, or that the puncture holes or perforations extend or should extend along the center lines of the depressions.

14. At no time did Mr. Greenwood disclose or suggest to me or to Playtex any apparatus or method for simultaneously or automatically puncturing, perforating or otherwise forming the claimed perforations through vent discs.

15. At no time did Mr. Greenwood disclose his patent application for the Patent or the Patent to me.

16. At no time did Mr. Greenwood disclose to me or to Playtex to use slits or that the perforations, punctures or holes should be slits. All of the punctures of the vent discs made by Mr. Greenwood were holes. None were slits.

17. I do not believe that Mr. Greenwood had, but was withholding from Playtex, information on how to make, or on an automated mechanism or method or system for simultaneously making, puncture holes in the residuals of vent discs.

18. At Playtex, I had the responsibility for and supervised the development of the subject matter disclosed in the Application.

19. Prior to the filing of the Provisional, Playtex obtained domed vent discs from Mr. Greenwood's manufacturer of vent discs. The vent discs had domed depressions therein, but the discs were not punctured. We tried puncturing the residual material above each of the 36 domed depressions of the discs by hand with a push-pin. However, we found that the vent discs did not perform satisfactorily and could not be commercialized. Playtex found that the puncture holes formed with push-pins caused tearing of residual vent disc material. It was found that the punctured vent discs sometimes leaked due to the puncture holes.

20. On or about November 8, 1995, Playtex conducted a home panel test (HPT NO.: 95-36) of vent discs that were obtained from Mr. Greenwood's vent disc manufacturer and that Playtex employees pierced by hand with a push pin, as disclosed to us by Mr. Greenwood. Results of the test showed that the nipples of the baby bottles having vent discs with the pierced puncture holes therein sometimes collapsed while the babies of the panel testers tried to suck liquid from the bottles. Nipple collapse indicated to Playtex that too much suction force was required to draw liquid from the bottles because the pierced vent holes of the vent discs were not operating properly. Thus, sometimes, the pierced vent holes did not let air in

quickly enough to properly vent the bottles. The results also showed that pierced holes of the vent discs sometimes leaked.

21. The inventor of the subject matter disclosed and claimed in the Applications, Mr. Chomik, joined Playtex on or about May, 1996. Mr. Chomik was hired as a project engineer and at that time was assigned to work for me. His first project was to develop a commercial vent disc for baby feeding bottles. He was made aware of what Mr. Greenwood had disclosed to Playtex.

22. I am familiar with the U.S. Patent and Trademark Office Action in which the Examiner rejects independent claims 1 and 2 of the Application. The Office Action states that these claims are taught by the Patent.

23. I do not agree with the rejection or with the grounds of rejection.

24. Fig. 19 does not show a vent disc with a plurality of perforations therethrough. There are no perforations in Fig. 19.

25. Fig. 17 does not show a plurality of perforations. Fig. 17 shows only one perforation.

26. The perforation shown in Fig. 17 does not extend along radius that forms the curvature of the domed portion of the vent disc.

27. In Fig. 17, the line representing the perforation is on an angle (not perpendicular) to the inner surface of the residual of the depression that is to be pierced, and it does not appear to extend along radii that form the curvature of the domed portion of the vent disc. Proof that the perforation line is at an angle (not perpendicular) to the surface of the residual of the depression is shown in the enlargement of Fig. 17 attached hereto as Exhibit A.

28. With regard to Fig. 17, the Office Action states that perforations 73 and 74 are inclined at an angle with respect to the vertical of vent disc 72. Assuming the Examiner means that the perforation line is at an angle to the vertical axis through the bottle and through the vent disc, this does not necessarily or without doubt mean that the perforation line is perpendicular to the inner surface of the residual to be pierced, or that the line is along radii that form the curvature of the domed portion of the vent disc.

29. The Office Action states that line or perforation 73 bisects perforation 74 in two. I disagree. First, the number 74 refers to a recess, not a perforation (see, Column 8, line 62). Second, while the point at which the perforation enters the residual may bisect the diameter of the depression, that does not necessarily mean that perforation line 73 is perpendicular to the surface of the residual to be pierced, or is on or coincident with the radius that forms the curvature of the dome of the vent disc.

30. The Office Action states that Fig. 17 is drawn such that line 73 has minimal length in the residual area which would indicate that both of the perforations are perpendicular to the surface to be pierced, and consequently, that the plurality of perforations extend along radii that form the curvature of the domed portion. Again, I disagree. As stated above and as clearly shown in the enlargement, line 73 is not drawn perpendicular. Therefore, line 73 does not have minimal length, and one cannot conclude that the plurality of perforations extend along the radii that form the curvature of the domed portion.

31. Fig. 17 is disclosed in the Patent as being a sectional view taken through a single diaphragm aperture in the diaphragm of Fig. 15 (Column 3, lines 21-23). Since Fig. 17 shows only one aperture, one cannot tell whether each recess 74 is perforated, which aperture of Fig. 15 is sectioned, or from which direction the reader is viewing the section. For these reasons, one cannot say necessarily or without doubt that Fig. 17 teaches the invention claimed in the Application.

32. The Patent discloses that in Fig. 17, aperture 73 is a point (Column 8, lines 40-41) formed by a straight pin puncture (Column 8, lines 57-59). Thus, aperture 73 is not a slit.

33. The Patent does not disclose or suggest the invention defined in the claims of the Application.

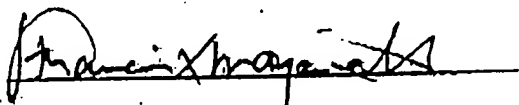
34. Because vent discs perforated by hand with push-pins as suggested by an inventor of the Greenwood patent sometimes leaked and sometimes did not vent properly, such vent discs could not be commercialized.

35. The vent disc invention recited in the claims of the Application is a commercial success. The vent disc has been employed in baby bottles commercially sold in the United States since 1998. Since then, over five million of the baby bottles have been sold in the U.S.

36. I believe the sales of the baby bottles since 1998 when the vent disc of the invention was used in the baby bottles, are primarily due to the presence and successful operation of the vent disc in the bottles.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

By



Francis X. Manganiello

Date: March 28, 2000.

EXHIBIT A

FIG. 18

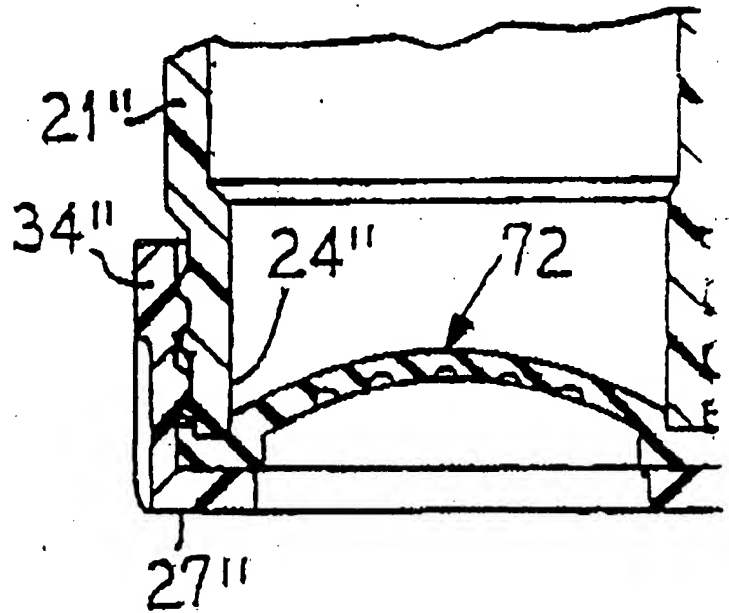


FIG. 17

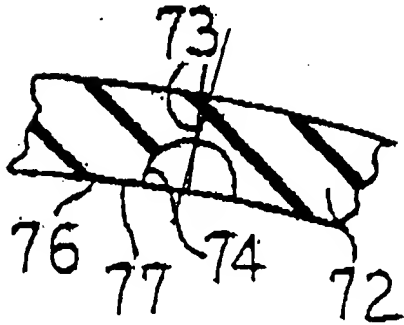


FIG. 19

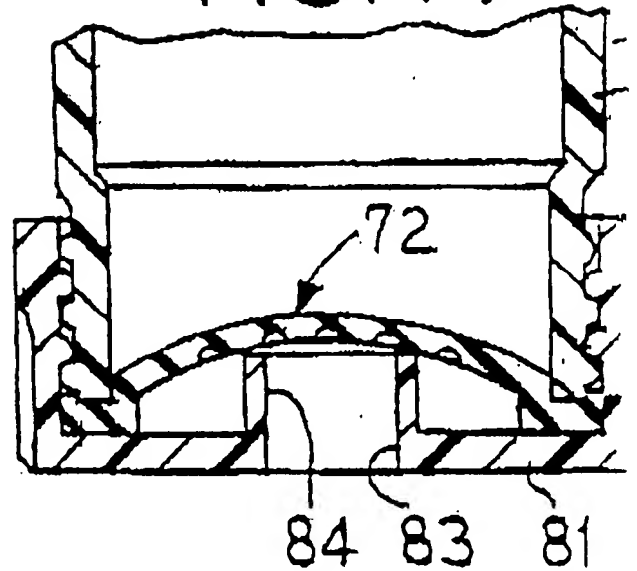


FIG. 20

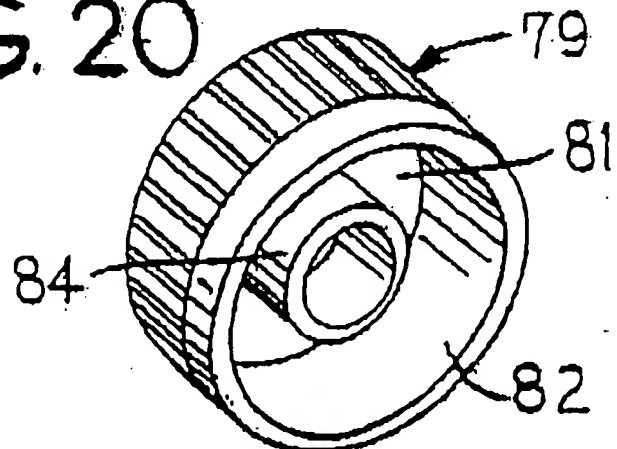


FIG. 21

FIG. 15

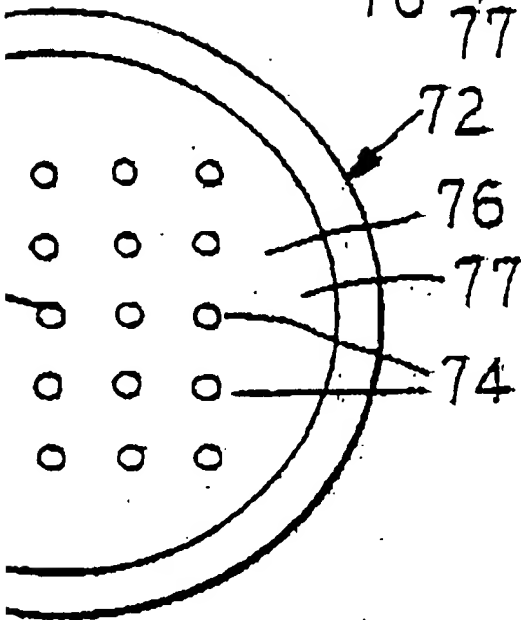


FIG. 16

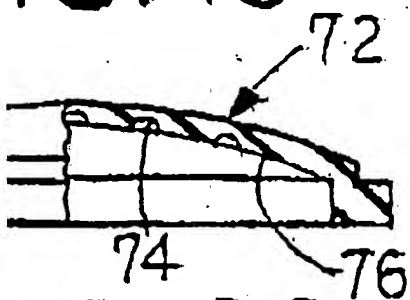


FIG. 22

71

Serial No.: 09/639,508

Art Unit: 3724

APPENDIX G

CONFIDENTIAL and PRIVILEGED

EXHIBIT III
3/28/00

460.1891USU

DECLARATION OF RICHARD S. CHOMIK

I, Richard S. Chomik, hereby declare as follows:

1. I graduated from The New Jersey Institute of Technology with a Bachelor of Science degree in mechanical engineering technology in 1992.
2. From January 1989 through May 1996, I was employed by G.R. Technical Services as an Associate Engineer and Project Engineer.
3. Since May of 1996, I have been employed by Playtex Products, Inc. ("Playtex") in its Infant Care business. I started as a Product Development Engineer. From 1998 to January 2000, I was the Senior Design Engineer, and currently I am the Group Leader for that business.
4. I have approximately four years of experience in the area of venting baby feeding bottles to allow air to flow into the bottle to alleviate the vacuum created in the bottle during feeding.
5. Playtex is the assignee of U.S. Patent Application Serial No. 09/209,070, filed December 10, 1998 (the "Application"), and U.S. Provisional Application 60/069,083 filed December 10, 1997 on which the Application claims priority (the "Provisional").

6. I am familiar with the Application and the Provisional (hereafter collectively referred to as "the Applications").
7. I am also familiar with U.S. Patent No. 5,499,729, filed March 15, 1994, and issued to Greenwood et al on March 19, 1996 (the "Patent").
8. Since May of 1996, I have reported to Mr. Frank Manganiello, Director of Research and Development for the Infant Care business of Playtex. My first project was to develop a commercial vent disc for the bottom of a baby bottle ("The Project"). I became familiar with the vent disc technology that was disclosed to Mr. Manganiello and to Playtex by Mr. Greenwood, one of the inventors of the Patent.
9. I never met Mr. Greenwood. I only spoke with him one or two times.
10. When I started working on the Project, Playtex had domed vent discs that had domed depressions extending upwardly into the underside of the vent discs. The residual material of the vent discs above the depressions had puncture holes therethrough. The puncture holes were formed one at a time by hand by Playtex personnel using a draftsman's compass or a push pin (a pin with a pointed tip with an axially aligned cylindrical head).
11. When Playtex needed additional vent discs to work on, they were supplied to Playtex by Mr. Greenwood's manufacturer of vent discs. The vent discs Playtex

received from Mr. Greenwood's manufacturer were domed and had domed depressions, but were not punctured.

12. When I started on the Project, Playtex was using a draftsman's compass or a push-pin to puncture the residuals above the domed depressions of the vent discs received from Mr. Greenwood's manufacturer.

13. When I started on the Project, all of the punctured vent discs at Playtex had puncture holes made by hand with a draftsman's compass or push-pin.

14. When I started on the Project, I was advised that vent discs having the puncture holes made by hand with a compass or push-pin by Playtex had been home panel tested (the "First Panel Test"). Results of the First Panel Test showed that the nipples of the baby bottles having the vent discs with pierced puncture holes therein sometimes collapsed while the babies of the panel testers tried to suck liquid from the bottles. Nipple collapse indicated to Playtex that too much suction force was required to draw liquid from the bottles because the pierced vent holes of the vent discs were not operating properly. Thus, sometimes the pierced vent holes did not let air in quickly enough to properly vent the bottles. The results also showed that pierced holes of the vent discs sometimes leaked.

15. I used a comparator to examine hand-made puncture holes through vent discs that Playtex had on hand. I found that the puncture holes were randomly formed. They were random in terms of point of entry, angle, and contact/seal

surface area (the latter meaning the surface areas of the wall of the puncture hole that contact each other and/or seal against each other). The puncture holes entered the residual material at various points on the interior surface of the domed depressions and the puncture holes were disposed at various angles through the residuals. Further, the surfaces of the walls of the puncture holes did not correspond to the smooth surface of the compass point or push-pin that formed the holes. The puncture holes were rough and uneven. The edges defining the holes were jagged. It was clear to me that during piercing of the vent disc, the points and pins tore the residual material of the vent disc. Because of this, the puncture holes did not have smooth contact/seal surfaces. They did not form good seals and they sometimes leaked.

16. To solve the leakage problem, I tried piercing the residuals of a small number of the vent discs by hand with a blade having conical (when viewed in vertical section), angular flat surfaces that formed an elongated horizontal sharp tip, as shown in the drawings of the Application. I found that the resulting perforations were slits that had uniform, smooth side edges or wall surfaces that provided adequate surface contact area and adequate smooth seal surface area. This solved the leakage problem.

17. To eliminate the randomness of the puncture holes, I decided that the perforations, preferably slits, should be formed automatically so that they would be substantially uniformly or identically and consistently formed through the residuals of the vent disc.

18. I reviewed a drawing that was made by a Playtex employee, Paul Thom. He made the drawing upon the instructions of Mr. Manganiello. A copy of the drawing is attached hereto as Exhibit A. The drawing shows a vertical section through a domed vent disc having dimples or depressions extending upwardly into the domed central panel of the vent disc. The drawing shows that the axes or centerlines of the depressions radiate from the center of the sphere of the domed portion of the vent disc. Thus, the drawing shows that the center lines of the depressions are coincident with the radii that form the curvature of domed central panel of the vent disc. The drawing also shows an enlarged vertical section through a portion of a vent disc having a depression therein and shows a line drawn through the center of the depression and through the residual of vent disc material above the depression. Upon observing the drawing, I had the idea to form the perforations automatically and normal, i. e., perpendicular, to the surface of the vent disc to be pierced, or, along radii that form the curvature of the domed portion of the disc, or along the center lines of the depressions, which center lines are along radii that form the curvature of the domed central panel, as disclosed and claimed in the Application. I decided that in order to have a vent disc that could be commercial and to be able to produce commercial vent discs, I had to eliminate the randomness of the perforations. I realized that to do that, the perforations should be formed as stated above, i.e., in accordance with my idea, automatically, consistently and substantially identically, preferably as slits formed by blades having tips as described in paragraph 16 herein.

19. I then developed the apparatus and method disclosed and claimed in the Application. I started with a hand operated bench model apparatus that had a vertically reciprocable table on which a blade, as described in paragraph 16, was mounted. The domed central panel area of vent discs had domed depressions therein as shown in the drawing of Mr. Thom. With the bench model, the domed central panel areas of the vent discs were flattened and the residuals of the domed depressions of the flattened vent discs were pierced. The perforations were made along the radii and center lines, as described in paragraph 18 above.

20. I tested the vent discs that were pierced as described in paragraph 19 above. I found that the perforations of these vent discs did not leak and vented sufficiently to prevent nipple collapse. I also did comparative tests of vent discs whose residuals had hand-made random puncture holes made by Mr. Greenwood and by Playtex.

21. The comparative tests showed that improved, optimum air venting and no leakage occurred with the perforations made with the bench model apparatus according to paragraph 19.

22. About the middle of November of 1996, Playtex conducted a second home panel test (the "Second Panel Test") using baby bottles having nipples and domed vent discs supplied to Playtex by Mr. Greenwood's manufacturer and whose residuals were pierced by use of the bench model apparatus and in the manner described in paragraph 19 above.

23. Results of the Second Panel Test showed that the vent discs and nipples of the baby bottles performed satisfactorily. Although the some panel testers reported some bottle leakage, upon further consultation with the panel testers and further testing, it was determined that the leakage was not due to the perforations. The vent discs did not leak from the slits. The results of the Second Panel Test also showed that venting was satisfactory. Thus, the vent discs that were panel tested were significantly improved over the vent discs that had hand-pierced vent holes formed with a compass or push-pin and that were tested in the First Panel Test.

24. Since the testing of the vent discs that were pierced randomly by hand with a compass or push-pin and that had puncture holes at various angles did not vent as well as the vent discs that were perforated according to paragraph 19 hereof, I determined that when the plurality of perforations were at an angle, even a slight angle, from perpendicular to the surface to be pierced, venting would be over longer (not the shortest) paths and would create a greater propensity for nipple collapse. I concluded therefore that with the longer paths, venting would be negatively affected. Since a bottle nipple can only withstand a limited amount of negative pressure, a plurality of perforation lines at an angle perpendicular to the surface to be pierced, or to the radii or the center lines coincident with the radii, would or could significantly deleteriously affect the venting performance of the vent disc.

25. At no time did Mr. Greenwood disclose or suggest to me or Playtex that the puncture holes or perforations through the residuals of the vent discs should be perpendicular to the surface to be pierced, or along or coincident with radii that form the curvature of the domed central panel of the discs, or that the center lines of the depressions were or were to be coincident with radii that form the domed curvature of the discs, or that the perforations should extend along the center lines of the depressions.

26. At no time did Mr. Greenwood disclose to me or to Playtex any apparatus or method for simultaneously perforating or forming the claimed perforations through vent discs.

27. At no time did Mr. Greenwood disclose his patent application for the Patent or the Patent to me, or to Playtex.

28. At no time did Mr. Greenwood disclose to me or to Playtex to use slits or that the perforations, punctures or holes should be slits. All of the punctures of the vent discs that I saw prior to my developing the blade and bench model apparatus described above were holes. None were slits.

29. I am familiar with the U.S. Patent and Trademark Office Action in which the Examiner's rejected independent claims 1 and 2 of the Application. The Office Action states that these claims are taught by the Patent.

30. I do not agree with the rejection or with the grounds of rejection.
31. Fig. 19 does not show a vent disc with a plurality of perforations therethrough. There are no perforations in Fig. 19.
32. Fig. 17 does not show a plurality of perforations. Fig. 17 shows only one perforation.
33. The perforation in Fig. 17 does not extend along the radius that forms the curvature of the domed portion of the vent disc.
34. In Fig. 17, the line representing the perforation is on an angle (not perpendicular) to the inner surface of the residual of the depression that is to be pierced, and it does not appear to extend along radii that form the curvature of the domed portion of the vent disc. Proof that the perforation line is at an angle (not perpendicular) to the surface of the residual of the depression is shown in the enlargement of Fig. 17 attached hereto as Exhibit B.
35. With regard to Fig. 17, the Action states that perforations 73 and 74 are inclined at an angle with respect to the vertical of vent disc 72. Assuming the Examiner means that the perforation line is at an angle to the vertical axis through the bottle and through the vent disc, this does not necessarily or without doubt mean that the line is perpendicular to the surface of the residual to

be pierced, or that the line is along the radii that form the curvature of the domed portion of the vent disc.

36. The Office Action states that line or perforation 73 bisects perforation 74 in two. I disagree. First, the number 74 refers to a recess, not a perforation (see, Column 8, line 62). Second, while the point at which the perforation enters the residual may bisect the diameter of the depression, that does not necessarily or without doubt mean that the perforation line 73 itself is perpendicular to the surface of the residual to be pierced, or is on or coincident with the radius that forms the curvature of the vent disc.

37. The Office Action states that Fig. 17 is drawn such that line 73 has minimal length in the residual area which would indicate that both of the perforations are perpendicular to the surface to be pierced, and consequently, that the plurality of perforations extend along radii that form the curvature of the domed portion. Again, I disagree. As stated above and clearly shown in the enlargement, line 73 is not drawn perpendicular. Therefore, line 73 does not have minimal length, and one cannot conclude that the plurality of perforations extend along the radii that form the curvature of the domed portion.

38. Fig. 17 is disclosed in the Patent as being a sectional view taken through a single diaphragm aperture in the diaphragm of Fig. 15 (Column 3, lines 21-23). Since Fig. 17 shows only one aperture, one cannot tell whether each recess 74 is perforated, or which aperture of Fig. 15

is sectioned, or from which direction the reader is viewing the section. For these reasons, one cannot say necessarily or without doubt that Fig. 17 teaches the invention claimed in the Application.

39. The Patent discloses that in Fig. 17, aperture 73 is a point (Column 8, lines 40-41) formed by a straight pin puncture (Column 8, lines 57-59). Thus, aperture 73 is not a slit.

40. The Patent does not disclose or suggest the invention defined in the claims of the Application.

41. Because vent discs perforated by hand with push-pins as suggested by an inventor of the Greenwood patent sometimes leaked and sometimes did not vent properly, such vent discs could not be commercialized.

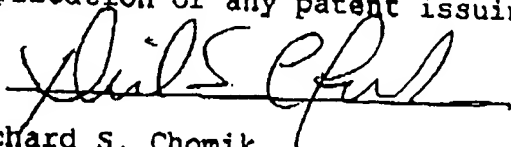
42. The vent disc invention recited in the claims of the Application is a commercial success. The vent disc has been employed in baby bottles commercially sold in the United States since 1998. Since then, over five million of the baby bottles have been sold in the U.S.

43. I believe the sales of the baby bottles since 1998 when the vent disc of the invention was used in the baby bottles, are primarily due to the presence and successful operation of the vent disc in the bottles.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are

punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

By



Richard S. Chomik

Date: March 28, 2000.

INST: SILCOAT

EXHIBIT A

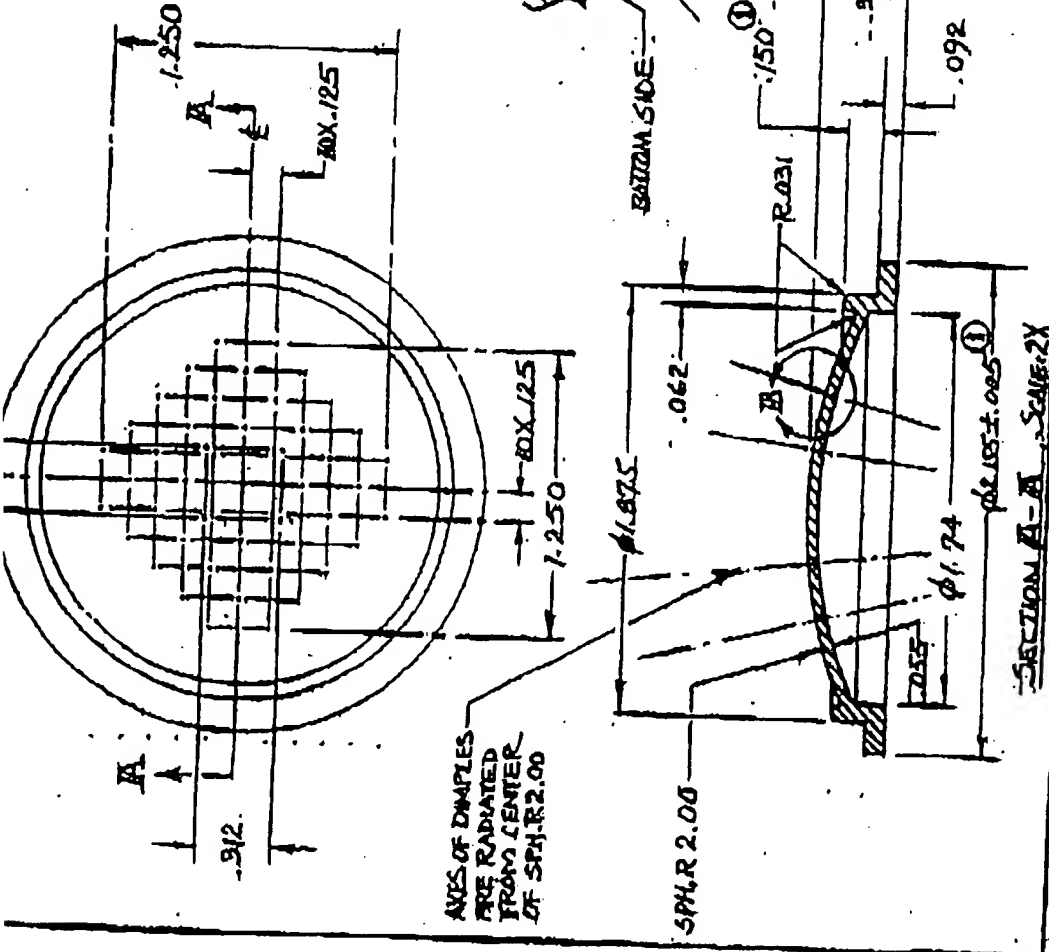


EXHIBIT B

FIG. 18

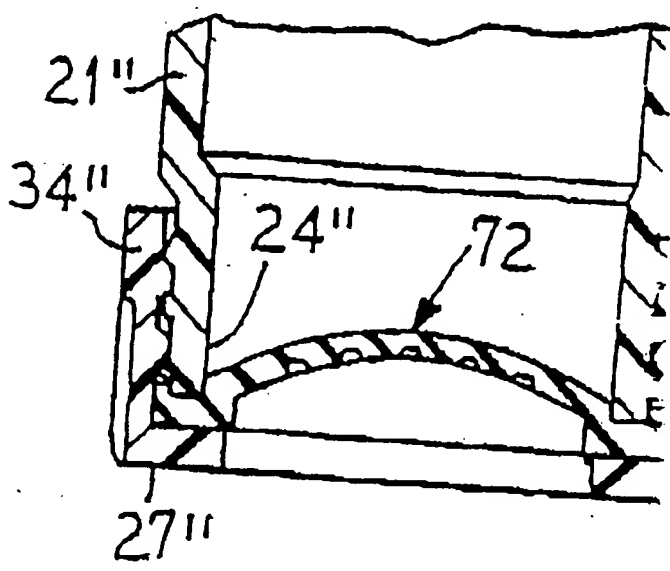


FIG. 17

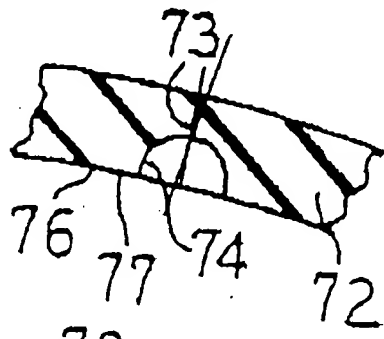


FIG. 19

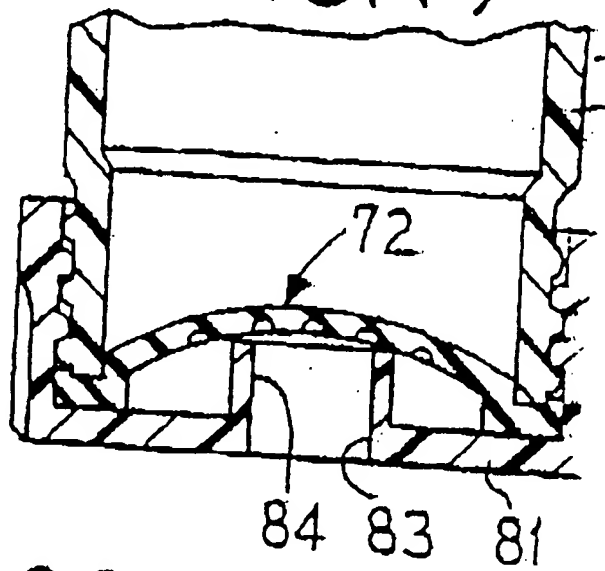


FIG. 20

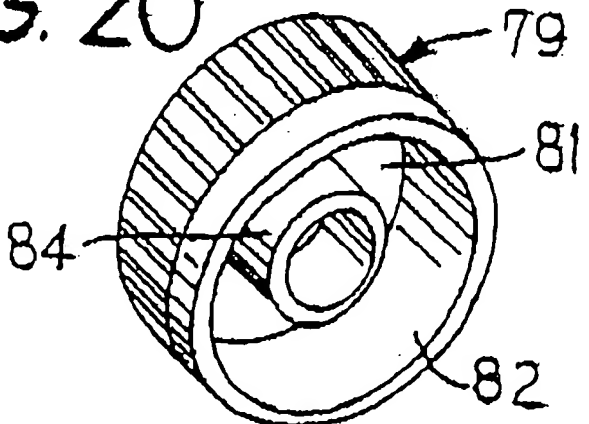
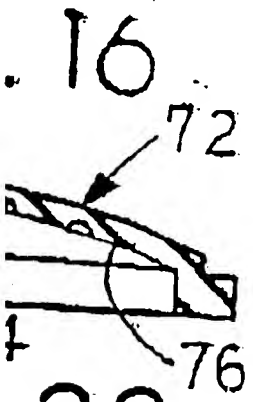
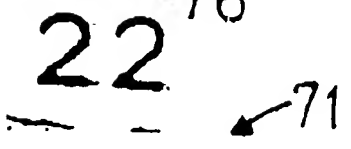


FIG. 21



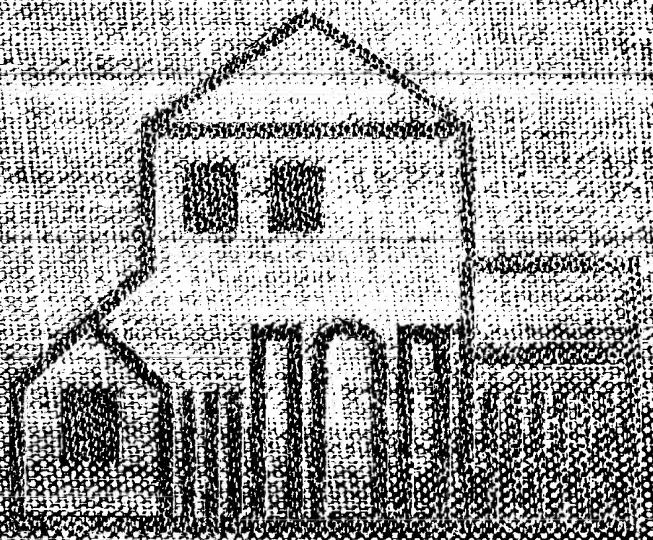
RELATED PROCEEDINGS APPENDIX

As discussed above, there are no other appeals or interferences known to appellants, appellants' attorney or the owner/assignee of the application (Playtex Products, Inc.), which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal. Thus, no copies of decisions rendered by a court or the Board are included herewith.

EXHIBIT IV

THE
RANDOM
HOUSE
DICTIONARY
of the
ENGLISH
LANGUAGE

The
Unabridged
Edition

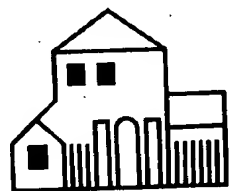


THE
RANDOM
HOUSE
DICTIONARY
of the
ENGLISH
LANGUAGE

JESS STEIN
Editor in Chief

LAURENCE URDANG
Managing Editor

RANDOM HOUSE/NEW YORK



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Manufactured in the United States of America

cohort(us) urged (ptp. of *cohortare*; see *cohort*) + *-ive*]
co-hosh (kō'hosh, kō hosh'), *n.* either of two perennial herbs of the Eastern U.S., therianculaceous *Cimicifuga racemosa* (**black cohosh**), or the berberidaceous *Caulophyllum thalictroides* (**blue cohosh**), both used medicinally. [*< Algonquian (Mass.): rough*]
co-hune (kō'hōon'), *n.* a pinnate-leaved palm, *Orbignya Cohune*, native to Central America, bearing large nuts whose meat yields an oil resembling that of the coconut. Also, **cohune'** palm'. [*< AmerSp < some native Central American dial.*]
coif¹ (kōlf), *n.* 1. a hood-shaped cap, usually of white cloth and with extended sides, worn beneath a veil, as by nuns. 2. any of various hoodlike caps, varying through the centuries in shape and purpose, worn by men and women. 3. a cap similar to a skullcap, worn by a sergeant at law. 4. *Armor.* a covering for the head and neck, made of leather, padded cloth, or mail. 5. *Brit.* the rank or position of a sergeant at law. —*v.t.* 6. to cover or dress with or as with a coif. [*ME coiffe*(e) < OF *coiffe* < LL *cofea*, *cuphia* < OHG **kupfia* cap akin to *co*²]
coif² (kwāf), *n. Informal.* a colffure. [short form]
coif-fur (kwa fœr'), *n., pl. -furs (-fœr')*. *French.* a hairdresser.
coiffure (kwā fyōōr'; *Fr.* kwa fyʁ'), *n., pl. -fures (-fyōōrz'; Fr. -fyʁ'), v. -fured (-fyōōrd'), -fur-ing (-fyōōr'ing).* —*n.* 1. a style of arranging or combing the hair. 2. a head covering; headdress. —*v.t.* 3. to provide with a coiffure. [*< F, equiv. to coiff(er) (to) dress the hair (see coif)* + *-ure -URS*]
coign (kōln), *n., v.t.* quoin.
coigne (kōln), *n., v.t., coigned, coign-ing.* quoin.
coign' of van'tage, a favorable position for observation or action: *From my coign of vantage, I could see that the story would have a happy ending.*
coil¹ (kōil), *v.t.* 1. to wind into regularly spaced rings one above the other: *to coil a wire around a pencil.* 2. to wind on a flat surface into rings one around the other: *He coiled the rope on the deck.* 3. to gather (rope, wire, etc.) into loops: *She coiled the clothesline and hung it on the hook.* —*v.i.* 4. to form rings, spirals, etc.; wind: *The snake coiled, ready to strike.* 5. to move in or follow a winding course: *The river coiled through the valley.* —*n.* 6. a connected series of spirals or rings into which a rope or the like is wound. 7. a single such ring. 8. an arrangement of pipes, coiled or in a series, as in a radiator. 9. a continuous pipe having inlet and outlet, or flow and return ends. 10. *Elect. a.* a conductor, as a copper wire, wound up in a spiral or other form. *b.* a device composed essentially of such a conductor. 11. *Philately.* a. a stamp issued in a roll, usually of 500 stamps, and usually perforated vertically or horizontally only. *b.* a roll of such stamps. [*V. var. of COIL*²]
coil² (kōil), *n.* 1. a noisy disturbance; tumult. 2. trouble; bustle; ado. [*?*]
coil' spring', any spring of wire coiled helically, having a cylindrical or conical outline. See *illus.* under *spring*.
Co-im-ba-tore (kō im/bā tōr', -tōr'), *n.* a city in W Madras, in SW India. 286,300 (1961).
Coim-bra (kwōnm/bra), *n.* a city in central Portugal; noted university founded at Lisbon 1290, transferred here 1537. 56,497 (1960).
coin (kōln), *n.* 1. a piece of metal stamped and issued by the authority of the government for use as money. 2. a number of such pieces. 3. *Archit.* quoin (defs. 1, 2). 4. *Obs.* a corner cupboard of the 18th century. 5. *pay someone back in his own coin*, to reciprocate in kind; retalliate: *The saleswoman was terribly rude, but I resisted the temptation to pay her back in her own coin.* —*v.t.* 6. to make (money) by stamping metal: *The mint is coining pennies.* 7. to convert (metal) into money: *The mint coined copper into pennies.* 8. to make; invent; fabricate: *to coin words.* —*v.i.* 9. *Brit. Informal.* to counterfeit, esp. to make counterfeit money. 10. *Metaworking.* to raise designs on both sides of (a blank) by forcing dies against it. *Cf. emboss* (def. 3). 11. *coin money, Informal.* to make or gain money rapidly: *Those who bought stock in computers a few years back are now coining money.* [*ME coyn(e), coygne < MF coin, cuigne wedge, corner, die < L cuneus wedge*] —*coin'-able, adj.* —*coin'-er, n.*
coin-age (kōi'nij), *n.* 1. the act, process, or right of making coins. 2. that which is coined. 3. coins collectively; currency. 4. anything made, invented, or fabricated: *"Ecdysiast" is a coinage of H. L. Mencken.* [*late ME coy(ge)nage < MF coignage*. See *coin*, -AGE]
coin-age bronze, an alloy of 95 percent copper, 4 percent tin, and 1 percent zinc.
coin' box', a locked container or receptacle for holding coins deposited in a pay telephone, pinball machine, or other coin-operated machine.
coin' chang'er, 1. a machine that gives change rapidly, as to a customer, typically operated by a manual keyboard and often used in association with a cash register. 2. a machine that supplies change, as small coins for large or large coins for small, esp. for the use of other coin-operated machines.
co-in-cide (kō in/sid'), *v.t., -cid-ed, -cid-ing.* 1. to come to occupy the same place in space, the same point or period in time, or the same relative position: *The centers of concentric circles coincide.* *Our vacations coincided this year.* 2. to correspond exactly, as in nature, character, etc.: *His vocation coincides with his avocation.* 3. to agree or concur, as in thought, opinion, etc.: *Their opinions always coincide.* [*< ML coincide(re), equiv. to L co- < incidere to befall; see INCIDENT*]
co-in-ci-dence (kō in/si d'ns), *n.* 1. the condition or fact of coinciding. 2. an instance of this. 3. a striking occurrence of two or more events at one time apparently by mere chance: *Our meeting in Venice was pure coincidence.* [*COINCID(ENT) + -ENCE*]
co-in-ci-dent (kō in/si d'nt), *adj.* 1. coinciding; occupying the same place or position. 2. happening at the same time. 3. exactly corresponding. 4. in exact agreement (usually fol. by *with*). [*< ML coincident- (s. of coincidens) prp. of coincidere to coincide; see -ENT*] —*Syn.* 2. simultaneous, synchronous, contemporary.
co-in-ci-dental (kō in/si d'nt'əl), *adj.* showing or involving coincidence: *a coincidental meeting.* [*COINCIDENT + -AL*]
co-in-ci-den-tal-ly (kō in/si d'nt'ə'l), *adv.* in a coincidental manner. Also, **co-in-ci-dent-ly** (kō in/si d'nt'əl), [*COINCIDENTAL + -LY*]
urge; chief; sing; shoe; thin, that; zh as in measure, cradle (krād'ə). See the full key inside the front cover.

EXHIBIT V

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any of the factors of a prod-
factor 2 a : a number that
or characteristic (as of a de-
iv. of Gk *kollōs* hollow + NL
or fossil of a family (Coela-
coelacanth *adj* — coe-la-
-thōn *adj* — coe-la-can-

ob. fr. NL *coela*, fr. neut. pl.
-kollōs, fr. kollōs : cavity
iterocoele)

1 [deriv. of Gk *kollōs* + en-
y of a phylum (Coelenterata)
tebrate animals including the
hydroids — coelenterate *adj*
-len-tera -rā [NL, fr. Gk
y of a coelenterate
s. fr. Gk *kollōs*, fr. kollōs
the abdominal cavity

coe-lo-ma-ta \si-'lō-māt-ə\
] : the usu. epithelium-lined
over worms — coe-lo-mate
\si-'lām-ik, -'lō-mik *adj*
ik *kōin*, *kōino*, fr. *koinos* —
enocety)

1 a : a multinucleate mass of
nuclear division unaccom-
nism consisting of such a struc-
\sē-nā-'sit-ik *adj*
-nu-tri -'n(yū)(ə)r-ī [NL,
ipeworm larva consisting of a
merous scolices develop
irreversible nonprotein com-
i of an enzyme system after

with one another — co-equal-
ly \('kō-'ē-kwā-'ē\ *adv*
co- + *arcēre* to shut up, en-
or dominate by nullifying
act or choice 3 : to enforce
co-erc-ible \-'er-sə-bəl *adj*
he act, process, or power of

Intended to coerce — co-er-

L *coelestaneus*, fr. *co-* + *aetas*

ually or jointly eternal —
r-ni-ty \-'tār-nāt-ē\ *n*
r. *co-* + *aevum* age, lifetime]
or duration *syn* see CONTEM-
\kō-('ē-'val-āt-ē\ *n*
together or at the same time
r esp. as a matter of policy
co-ex-is-tent \-'tānt *adj*
d] : having the same spatial
co-ex-ten-sive-ly *adv*

[It & Turk; It *caffè*, fr. Turk
made
from
seeds
] *see*
seeds
educ-
d)
where
sold
pre-

p. for coffee : a flowering and
fruiting branch with
leaves 2 fruit, 3 fruit
with pericarp partly re-
moved to show seeds

COFFEE TREE

COFFEE TREE
[fr. fr. OF, fr. L *cophinus*
BOX; esp. : a strongbox for
— usu. used in pl. 3 a : the
ION C : COFFERDAM 4 : a
offit

right enclosure from which
om of a body of water, and
t : a watertight structure for
f a ship

ceptacle, fr. MF *cofin*, fr. L
rps to be buried in 2 : the
ise of foot
coffin

in the hoof of the horse
purned by a goal line and a
ch a punt is often aimed so
the defenders' goal line
caravan] : a train of slaves

rgin; akin to Norw *kug* cog;
th on the rim of a wheel or
t — cogged \k'g'd *adj*
ick\ vi 1 obs : to cheat in
obs : to use venal flattery
udulently 2 obs : WHEEL
r. of cock (cog) : to connect

er received into a mortise in
either

co-gen-cy \k'kō-jən-sē\ *n* : the quality or state of being cogent
co-gent \k'kō-jənt *adj* [L *cogent*, *cogens*, pp. of *cogere* to drive
together, collect, fr. *co-* + *agere* to drive — more at AGENT] : having
power to compel or constrain; esp : appealing forcibly to the mind
or reason : CONVINCING *syn* see VALID — co-gent-ly *adv*
co-g-i-ta-ble \k'kāj-ət-ə-bəl *adj* : THINKABLE
co-g-i-tate \k'kāj-ə-'tāt *v* [L *cogitare*, pp. of *cogitare* to think,
think about, fr. *co-* + *agere* to drive, agitate — more at AGITATE]
vi 1 : to ponder or meditate on usu. with intensity and ob-
jectivity 2 : PLAN, PLOT — vi : to think deeply : PONDER *syn*
see THINK — co-g-i-tation \k'kāj-ə-'tā-shən\ *n*
co-g-i-ta-tive \k'kāj-ə-'tāt-iv *adj* 1 : of or relating to cogitation
2 : capable of or given to cogitation

co-gnac \k'kōn-'yak, -'kän, -'kōn- *n* [F, fr. *Cognac*, France] 1 *cap*
: a brandy from the departments of Charente and Charente-
Maritime distilled from white wine 2 : a French brandy
co-g-nate \k'kāj-'nāt *adj* [L *cognatus*, fr. *co-* + *gnatus*, natus, pp.
of *nasci* to be born; akin to L *gignere* to beget — more at KIN]
1 a : related by blood b : related on the mother's side 2 a : re-
lated by descent from the same ancestral language b of a word or
morpheme : related by derivation, borrowing, or descent c of a
substantive : related usu. in derivation to the verb of which it is the
object 3 : of the same or similar nature — co-g-nate-ly *adv*

co-g-nate *n* : one that is cognate with another
co-g-na-tion \k'kāj-'nā-shən\ *n* : cognate relationship
co-g-ni-tion \k'kāj-'nī-shən\ *n* [ME *cognicioun*, fr. L *cognitio*,
cognitio, fr. *cognitus*, pp. of *cognoscere* to become acquainted with,
know, fr. *co-* + *gnoscere* to come to know — more at KNOW] : the
act or process of knowing including both awareness and judgment;
also : a product of this act — co-g-ni-tion-al \-'nīsh-nəl, -'nīsh-
ən-əl *adj* — co-g-ni-tive \k'kāj-'nēt-iv *adj* — co-g-ni-tive-ly *adv*

co-g-ni-ta-ble \k'kāj-'nā-zə-bəl, k'kāj-'nī- *adj* 1 : capable of being
known 2 : capable of being judicially heard and determined
— co-g-ni-ta-ble-ly -bəl *adv*
co-g-ni-zance \k'kāj-'nā-zən(t)s\ *n* [ME *cognissance*, fr. OF *cognisance*,
fr. *cognoscere* to know, fr. L *cognoscere*] 1 : a distinguishing
mark or emblem (as a heraldic bearing) 2 : SURVEILLANCE, CON-
TROL b : APPREHENSION, PERCEPTION c : range of apprehension
d : NOTICE, OBSERVANCE 3 a : the right and power to hear and de-
cide controversies b : the judicial hearing of a matter

co-g-ni-zant \-'zənt *adj* : having cognizance *syn* see AWARE
co-g-nize \k'kāj-'nīz *v* [back-formation fr. *cognizance*] : KNOW
co-g-no-men \k'kāj-'nō-mən\ *n*, pl. *cognomens* or *cog-no-mi-na*
\-'nām-zə-nā, -'nō-mā\ [L, irreg. fr. *co-* + *nomen* name — more at
NAME] 1 : SURNAME; esp : the third of usu. three names of a person
among the ancient Romans 2 : NAME; esp : a distinguishing nick-
name or epithet — co-g-no-mi-nal \-'nām-ən-əl *adj*

co-g-no-scen-tē \k'kāj-'nō-shən-ē\ *n*, pl. *cog-no-scen-tē* \-'ē\
[obs. It (now *cognoscere*), fr. *cognoscere*, ad., wisc. fr. L *cogno-*
scere, *cognoscens*, pp. of *cognoscere*] : CONNOISSEUR
co-g-nos-ci-ble \k'kāj-'nās-ə-bəl *adj* [LL *cognoscibilis*, fr. L
cognoscere] : COGNIZABLE

co-gon \k'kō-'gōn\ *n* [Sp *cogón*, fr. Tag. Bisayan, Bikol *kugon*]
: any of several coarse tall grasses (genus *Imperata*) used in the
Philippines and adjacent lands for thatching

cog railway *n* : a steep mountain railroad that has a rail with cogs
that engages a cogwheel on the locomotive to ensure traction

cogs-well chair \k'gəz-'wel-, -wəl- *n*, often *cap* 1st C [fr. the name
Cogswell] : an upholstered easy chair with inclined back, thin open
arms, and cabriole legs

cog-wheel \k'gə-'wel-, -wəl- *n* : a wheel with cogs or teeth
co-hab-it \k'kō-'həb-ət *v* [LL *cohabitare*, fr. L *co-* + *habitare* to
inhabit, fr. *habitas*, pp. of *habere* to have] 1 : to live together as
husband and wife 2 : to live together — co-hab-i-tant \-'tənt\ *n*
— co-hab-i-tation \('kō-'həb-ət-ā-shən\ *n*

co-here \('kō-'ə-(ə)r-, -'ē-(ə)r\ *n* : a joint heir
co-here \k'kō-'hi-(ə)r\ *v* [L *cohaerere*, fr. *co-* + *haerere* to stick]
1 a : to hold together firmly as parts of the same mass b : ADHERE
c : to display cohesion 2 : to consist of parts that cohere 3 a : to
become united in principles, relationships, or interests b : to be
logically or aesthetically consistent *syn* see STICK

co-her-ence \k'kō-'hīr-ən(t)s-, -'hēr- *n* : the quality or state of co-
hering; esp : systematic connection esp. in logical discourse
co-her-en-cy \-'ən-sē\ *n* : COHERENCE

co-her-ent \k'kō-'hīr-ənt-, -'hēr- *adj* [MF or L; MF *cohérent*, fr. L
cohaerent, *cohaerens*, pp. of *cohaerere*] 1 : having the quality of
cohering 2 : logically consistent 3 : having waves in phase and of
one wavelength (~ light) — co-her-ent-ly *adv*

co-her-er \k'kō-'hīr-ər\ *n* : a radio detector in which an imperfectly
conducting contact between pieces of metal or other conductors
loosely resting against each other is materially improved in con-
ductance by the passage of high-frequency current

co-he-sion \k'kō-'hē-zhən\ *n* [L *cohaesus*, pp. of *cohaerere*] 1 : the
act or process of sticking together tightly 2 : union between
similar plant parts or organs 3 : molecular attraction by which
the particles of a body are united throughout the mass

co-he-sive \k'kō-'hē-siv-, -ziv *adj* : exhibiting or producing cohesion
or coherence — co-he-sive-ly *adv* — co-he-sive-ness *n*

co-hort \k'kō-'hō-(ə)r\ *n* [MF & L; MF *cohorte*, fr. L *cohors*,
cohors — more at COURT] 1 a : one of 10 divisions of an ancient
Roman legion b : a group of warriors or soldiers c : BAND,
GROUP 2 a : COMPANION, ACCOMPANY b : FOLLOWER, SUPPORTER

co-hosh \k'kō-'hōsh\ *n* [of Algonquian origin; akin to Natick
kōshki it is rough] : any of several American medicinal or poison-
ous plants as : a bugbane (*Cimicifuga racemosa*) 2 : a peren-
nial herb (*Caulophyllum thalictroides*) of the barberry family
C : BANEERRY

coif \k'kōif, in sense 2 usu. \kwāf\ *n* [ME *coiffe*, fr. MF, fr. LL *cofe*]
1 : a close-fitting cap; as : a hoodlike cap worn by nuns under
a veil b : a soldier's defensive skullcap worn under a hood of mail
c : a white cap formerly worn by English lawyers and esp. by
serjeants-at-law; also : the order or rank of a serjeant-at-law
2 : COIFFURE — coif \k'kōif, \kwāf\ or coiffe \kwāf\ *vi* coiffed or
coiffed; coiff-ing or coiff-ing

coif-feur \kwāf-'fēr\ *n* [F, fr. *coiffeur*] : a male hairdresser
coif-fure \kwāf-'fyū-(ə)r\ *n* [F, fr. *coiffeur* to cover with a coif,

arrange (hair), fr. *coiffe*] : a manner of arranging or styling the hair
coiffure *vi* : to arrange in a coiffure

coign of van-tage \k'kōi-nə-'vānt-ij\ *n* : an advantageous position
coil \k'kōi\ *n* [origin unknown] 1 : TUMULT 2 : TROUBLE
coil *vb* [MF *coillir* to collect] *vi* 1 : to wind into rings or spirals
2 : to roll or twist into a shape resembling a coil ~ *vi* 1 : to move
in a circular, spiral, or winding course 2 : to form or lie in a coil

coil *n* 1 a : a series of loops or a spiral b : a single loop of such a
coil 2 : a number of turns of wire esp. in spiral form usu. for
electromagnetic effect or for providing electrical resistance 3 : a
series of connected pipes in rows, layers, or windings

coin \k'kōin\ *n* [ME, fr. MF, wedge, corner, fr. L *luneus* wedge]
1 archaic a : CORNER, CORNERSTONE b : WEDGE 2 a : a piece of
metal issued by governmental authority as money b : metal money
coin *vi* 1 a : to make (a coin) esp. by stamping : MINT b : to
convert (metal) into coins 2 : CREATE (~ a phrase) — coin-er *n*

coin-age \k'kōi-nij\ *n* 1 : the act or process of coining 2 a : COINS
b : something (as a word) made up or invented
co-in-cide \k'kō-an-'sīd-, k'kō-an-' *vi* [ML *coincidere*, fr. L *co-* +
incidere to fall on, fr. *in-* + *cadere* to fall — more at CHANCE]
1 a : to occupy the same place in space or time b : to occupy
exactly corresponding or equivalent positions on a scale or in a
series 2 : to correspond in nature, character, or function 3 : to
be in accord or agreement : CONCUR *syn* see AGREE

co-in-ci-dent \k'kō-in-(t)-sād-ən(t)s-, -sā-'den(t)s\ *n* 1 : the condi-
tion or fact or an instance of coinciding : CORRESPONDENCE 2 : a
group of concurrent events or circumstances remarkable for lack
of apparent causal connection

co-in-ci-dent \k'kō-in-(t)-sād-ən(t)s-, -sā-'den(t)s\ *adj* [F *coincident*, fr. ML *coincident*,
coincident, pp. of *coincidere*] 1 : occupying the same space
or time (~ events) 2 : of similar nature : HARMONIOUS (a theory
~ with the facts) *syn* see CONTEMPORARY — co-in-ci-dent-ly *adv*

co-in-ci-den-tal \('kō-'in-(t)-sā-'den-t-əl *adj* 1 : resulting from a
coincidence 2 : occurring or existing at the same time — co-in-
ci-den-tal-ly -l-ē, -'den-t-ēl *adv*

co-in-sur-ance \k'kō-an-'shūr-ən(t)s\ *n* : joint assumption of risk
(as by two underwriters) with another
co-in-sur-ē \k'kō-an-'shu-(ə)r\ *vb* : to insure jointly — co-in-sur-er
n

coir \k'kōi-(ə)r\ *n* [Tamil *kayiru* rope] : a stiff coarse fiber from the
outer husk of the coconut
coils-trel \k'kōi-strəl\ *n* [MF *coustillier* soldier carrying a short
sword, fr. *coustille* short sword, fr. L *cultellus* knife — more at
CUTLASS] archaic : a mean fellow : VARLET

co-it-al \k'kō-ət-əl *adj* : of or relating to coitus
co-itus \k'kō-'ish-ən\ *n* [LL, fr. L *coitus*, *coitus* a coming together
fr. *coitus*, pp. of *coire* to come together, fr. *co-* + *ire* to go — more at
ISSUE] : COITUS — co-itus-al \-'ish-nəl, -ən-əl *adj*

co-it-us \k'kō-ət-as\ *n* [L, fr. *coitus*, pp.] : the natural conveying of
semen to the female reproductive tract : SEXUAL INTERCOURSE
coke \k'kōk\ *n* [ME; akin to Sw *kalk* pith, Gk *gelgis* bulb of garlic]
: the residue of coal left after destructive distillation and used as
fuel; also : a similar residue left by other materials (as petroleum)
distilled to dryness

coke *vi* : to change into coke ~ *vi* : to become coked
coke *n* [by shortening & alter.] slang : COCAINE
col \k'kāl\ *n* [F, fr. MF, neck, fr. L *collum*] 1 : a pass in a
mountain range 2 : a saddle-shaped depression in the crest of a
ridge

col- — see COM-
col- or col- or colo- comb form [NL, fr. L *colon*] 1 : colon
(colitis) (colostomy) 2 : colon bacillus (coliform)
cola *pl* of COLON
co-la \k'kō-lə\ *n* [fr. *Coca-Cola*, a trademark] : a carbonated soft
drink flavored with extract from coca leaves, kola nut, sugar,
caramel, and acid and aromatic substances
col-an-der \k'kōl-ən-dər-, 'kāl- *n* [ME *colyndore*, prob. modif. of
OProv *colador*, fr. ML *colatorium*, fr. L *colatus*, pp. of *colare* to
sieve, fr. *colum* sieve] : a perforated utensil for draining food
col-lat-i-tude \('kō-'lat-ə-, -t(yū)d\ *n* : the complement of the latitude

col-can-non \k'kāl-'kan-ən\ *n* [IrGael *cail ceannan*, lit., white-headed
cabbage] : potatoes and cabbage or other greens boiled and mashed
col-chi-cine \k'kāl-'chī-'sē-, 'kāl-'kē- *n* : a poisonous alkaloid
C₂₇H₄₅N₃O₄ extracted from the corms or seeds of the meadow
safron (*Colchicum autumnale*) and used on mitotic cells to induce
polyploidy and in the treatment of gout
col-chi-cum \k'kāl-'chī-'kəm-, 'kāl-'kī- *n* [NL, genus name, fr. L, a
kind of plant with a poisonous root] 1 : any of a genus (*Colchicum*)
of Old World corm-producing herbs of the lily family with flowers
like crocuses 2 : the dried corm or dried ripe seeds of autumn
crocus containing colchicine, possessing emetic, diuretic, and
cathartic action, and used for gout and rheumatism
col-co-thar \k'kāl-'kō-thər-, -'thār\ *n* [ML, fr. MF or OSP; MF *col-*
cotar, fr. OSP *colcotar*, fr. Ar dial. *qulqār*] : a reddish brown
oxide of iron left as a residue when ferrous sulfate is heated and
used as glass polish and as a pigment
cold \k'kōld\ *adj* [ME, fr. OE *ceald*, *cald*; akin to OHG *kalt* cold, L
gelu frost, *gelare* to freeze] 1 : having a temperature notably below
a norm 2 a : marked by lack of warm feeling : UNEMOTIONAL
b : done after deliberation or calculation and uncolored by per-
sonal feeling (a ~ act of aggression) 3 a : DEPRESSING, CHEER-
LESS b : producing a sensation of cold : CHILLING (~ blank walls)
c : COOL 4 a : DEAD b : UNCONSCIOUS (out ~) c : CERTAIN, SURE
5 : made uncomfortable by cold 6 a : retaining only faint scents,
traces, or clues (~ trail); also : far from discovering b : STALE,
UNINTERESTING (~ news) 7 : UNPREPARED — cold-ly \k'kōl-(d)lē\
adv — cold-ness \k'kōl-(d)-nəs\ *n* — in cold blood : with premed-
itation : DELIBERATELY
cold *n* 1 a : a condition of low temperature b : cold weather
2 : bodily sensation produced by loss or lack of heat : CHILL
3 : a bodily disorder popularly associated with chilling; *specif* :
COMMON COLD — in the cold : without heating — out in the cold
: deprived of benefits given others : NEGLECTED
cold-blood-ed \k'kōl-(d)-'bləd-əd *adj* 1 a : done or acting without
consideration, compunction, or clemency (~ murder) b : MATTER-
OF-FACT, EMOTIONLESS 2 : having cold blood; *specif* : having a

abut; ° kitten; or further; a back; ā bake; k cot, cart; aū out; ch chin; e less; ē easy; g gift; i trip; I life
j joke; ŋ sing; ō flow; ō flaw; ōi coin; th thin; th this; ū loot; ū foot; y yet; yū few; yū furious; zh vision

EXHIBIT VI

WEBSTER'S NEW INTERNATIONAL DICTIONARY OF THE ENGLISH LANGUAGE

Second Edition
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Colane

coin silver. *Metal.* Silver of standard fineness.
co-in-stan-ta-ne'-ty (*kō'in-stān-tā-nē'ty*). *n.* Coin-taneousness.
co-in-stan-ta-ne-ūs (*kō'in-stān-tā-nē'us*). *a.* Coinant at the same instant. — **ously**, *adv.* Coinantly.
co-in-sur-an-ce (*kō'in-shūr-'ās*). *n.* Insurance jointly with another or others; insurance, a system in which the insured is indemnified himself to the extent of that part of the loss covered by his policy.
coinsurance clause. *Insurance.* The clause in insurance, and certain other forms of property policies which provides for the application of the average principle in case of loss. When the clause refers to a fire-insurance policy, the insured is reimbursed his property covered to a stipulated percentage (usually frequently 80 per cent, the clause then being known as 80-per-cent coinsurance clause) if he incurs losses less than full.
co-in-sure' (*kō'in-shūr'*). *v. t. & i.; co-in-sured*. To insure jointly with one or others; to insure upon the basis of coinsurance.
co-in-tense' (-tēns'). *adj.* Equal in intensity.
tension'sion (-tēn'shun), **co-in-ten-sity** (-stī). *n.* coin-tise' (*kwa'n-tēz'*). *n.* [OF., adornment.] An ornamental article of apparel; esp., a scarf worn around dresses, or as a "favor" on knights' helmets.
co-iw'-ra' (*kwa'i-wrā'*). *n.* Family name used by the name. A trade-mark for a white sweet orange liqueur, made at Angers, France; hence, the liquor in this trade-mark.
coin weight. *Coinage.* A metal or glass scale, used to balance to show if current coins are up to standard.
coil (*koir*). *n.* [Tamil *kayiru* rope.] A stiff elastic cord extracted from the outer husk of the coconut.
cols-tral (*kōis'trel*). *n.* Also **cols'trl** (-tril). *OF.* *coustillier* groom or lad. Cf. CUSTREL.
An inferior groom or driver employed to care for the horses; hence, a mean paltry fellow, a valet.
Servile; base. **Both Archaic.**
co-it-ion (*kō-ish'un*). *n.* [*L. coitio*, fr. *coire* to conjoin, fr. *co-* + *ire* to go.] 1. A coming together; conjunction; meeting. Chiefly *Astral.*
2. Mutual attraction, as of iron and a magnet. Obs.
3. Sexual intercourse; copulation.
co-i-tus (*kōi't-us*). *n.* Coition. Obs.
co-i-tus (*kōi't-us*). *n.* [*L.*] Sexual intercourse.
co-k (*kō'ks*). *n.* [NL., fr. Gr. *koiza* a kind of palm]. A genus of coarse Asiatic monoclous grasses (fr. Poaceae). *babi*, *jani*, etc. A plant of this genus. *C. lacryma-jobi*, the Job's-tears.
co-ju'r-ro' (*kō-jūr'er*). *n.* A compurgator.
core (*kōk*). *n.* [Apar. fr. ME. *cores*, *coires*; core(-) *kalk* pith, Fr. *gêlvis* clove of garlic. Cf. KERE(-) core. Obs. *exc.* Dial. Eng.]
1. The infusible cellular coherent residue left when coal is subjected to destructive distillation. It consists mainly of carbon, is hard, porous, and gray, and has a friable crustor. b [In large substance] it is produced due when petroleum shale oil etc. are distilled to yield.
2. A burning coal; also, ash. *Dial. Eng.*
core (*kōk*). *v. t. & i.; COKEd* (*kōkt*); **COIRING** (*kōir-ing*). To change into coke; to become cokely.
core breeze. = 4th BREEZE.
core dust. Powdered coke. — **coke'-dust**, *adj.*
coke iron. Iron made in a furnace using coke as fuel.
coke-man (*kōk'mān*). *n.* A Breze-box-clearer, rolling and galvanizing, a coker.
coke'-ney (*kōk'-nē*). *n.* [Obscure in origin.] A word, probably meaning an egg. Obs.
coke oven. A retort over the manufacture of coke. In the coke-making process, so called from its shape, the heating for cooking is supplied by the partial combustion of the coke itself. In the more modern *by-product oven*, usually consisting of a series of long narrow chambers arranged in rows, volatile products are saved, and collected as ammonia, illuminating gas, and gas for heating the ovens.
coke'-oven, *adj.* Pertaining to coke-ovens.
coke plate. Tin plate made from coke-iron.
coke'ler (*kōk'er*). *n.* worker at a coke-oven.
wheel (*kōk'e*) to a pot; bath, or furnace pit. *Eng.*
co-ker (*kō'kēr*). *n.* Coco; — an old variant of COCONUT used in the port of London to avoid the ambiguity of COCKER-NUT.
co-ker-nut' (*kōk'er-nūt*). *n.* 1. = COCONUT. 1. See COCONUT.
2. [Prob. fr. *coco*, which was early confused with *litilla* *coquito*.] The edible seed of the coquito/palm (*Jubaea spectabilis*) of Chile, enclosed in a fruit like a small coconut.
co-ker-sack' (-sāk'). *n.* [Cf. *crocos sacking*.] A sack of corn, bran, etc. Southern U.S.
co-ker-y (*kōk'er-y*). *n.* A plant for making coke.
cokes (*kōks*). *n.* [See COAK.] A simpleton; a gull O.
coke-pole (*kōk-pōl*). *n.* Coal pole.
coke tower. *Gas Mfg.* A high tower containing packing for use as a scrubber. See SCRUBBER.
co-ky' (*kōk'y*). *adj.* Like coke; grimed with coke.
col (*köl*; F. *köl*). *n.* (F., neck; fr. *L. collum*, neck.) pass between adjacent peaks in a mountain chain.
2. A neck of low pressure between two anticlines.
Col- An assimilated form of COM- (which see).
col- = colo- (which see), as in **col-ligat** (*kōl'līgāt*).
col-la' (*kōl-lā'*). *n.* ENL., fr. Tenne *Kala*, black clay.
Co-l-a-da (*kō-lä'dä*; Sp. -thä; 112). *n.* [Sp.] A hilted sword which the Cid took from Ramon Berenguer.
Co-lan' (*kō-län'*). *n.* An Indian of a tribe dwelling near Secura Bay in northwestern Peru.
col'an-dër (*kül'än-dēr*; kess'; 277). *n.* filter, strain. Cf. COSSER.
col-v'al (*kōlväl*). *n.* A vessel, usually of metal or earthenware, having the bottom or lower part perforated for use as a sieve or strainer.

co.lane' (kō.lān'), n. The emu
apple. *Australia.* Colander.

|| Foreign Word. + Obsolete Variant of. + combined with. = equals. Abbreviations, Signs, etc., are explained on pages immediately preceding the Vocabulary

APPENDIX D

26, 1978, for which a response was due on December 26, 1978. Application 4 became abandoned because Schwartz did not respond to an office action dated March 27, 1980, for which a response was due on June 27, 1980. Application 5 became abandoned because Schwartz did not respond to an office action dated July 25, 1979, for which a response was due on August 25, 1979. Application 6 became abandoned because Schwartz did not respond to an office action dated June 4, 1979, for which a response was due on July 5, 1979. Application 7 became abandoned because Schwartz filed a response on January 28, 1980, to an office action dated October 25, 1979, for which a response was due on January 25, 1980.

An eighth application prosecuted by Schwartz, serial number 912,385, filed on June 5, 1978, also became abandoned as a result of Schwartz's failing to respond to an office action dated October 25, 1978, for which a response was due on January 25, 1979. Schwartz succeeded in reviving the abandoned application under Rule 137 on the basis of a mistake in docketing the office action for response; his petition to revive the application was granted on November 28, 1979. That application is now issued as United States Patent No. 4,211,190.

After Schwartz's death, petitions were filed in each of the above-listed seven applications to have them revived. The respective petitions were followed by a consolidated petition for revival of all seven applications. In all applications except for applications 2 and 5, the initial petitions had already been denied when the consolidated petition was filed. Subsequent to the filing of the consolidated petition in each application, the petitions were granted and each application was revived. In each decision granting respective petitions, the PTO attributed Schwartz's failure to respond timely to his "inability to perform his responsibilities."

The seven applications were revived mainly on the basis of the consolidated petition, which included (1) a declaration of Dr. Ezra A. Sharp; and (2) a declaration of Herbert Barlow, a patent attorney who took over several of Schwartz's on-going patent matters after Schwartz's death. Incidentally, it is noted that the consolidated petition misstated the filing date of application 1 as January 21, 1978, of application 2 as December 22, 1976, and of application 7 as January 25, 1980.

In addition to Dr. Sharp's testimony already discussed above, Dr. Sharp stated:

In recent years I have had no doctor patient relationship with Max Schwartz that would enable me to provide a professional

opinion as to his mental deterioration in recent years. However, his senility would not be inconsistent with my prior observations of him during those occasions when I was called upon to treat his heart problems.

Mr. Barlow stated that his law firm assumed the prosecution of a number of patent applications which were formerly handled by Schwartz. His testimony recounted three instances in which Schwartz had not filed completed United States patent applications which should have been filed, and nine instances in which Schwartz caused erroneously instructed foreign associates to drop the prosecution of corresponding foreign applications. Mr. Barlow stated that the foreign applications were filed "in the fall and early spring of 1978-79." He also stated that one of the three unfilled United States patent applications included a signed declaration dated September of 1979; no dates for the other two unfilled United States applications were noted.

[2] As evidenced above, Schwartz's course of professional failures subsequent to April 1973 was progressively worse. The failures began in early 1974 and became more frequent in the following years. Because Schwartz's state of health became precarious as early as April 1973, there is no reason to isolate the year 1974 and treat it differently from the later years. Accordingly, the initial abandonment of the '365 application was due at least in part to Schwartz's illness and thus excused within the meaning of unavoidable delay under 35 U.S.C. §133. See e.g. *In re Mattullah*, 1912 Dec. Comm'r Pat. 490, 493 (App. D.C. 1912); *Ex parte Sellers*, 1905 Dec. Comm'r Pat. 336 (Comm'r Pat. 1905); *McDuffee v. Hestonville*, 181 F. 503, 510-11 (E.D. Pa. 1910).

Conclusion

For the foregoing reasons and on this rather unusual set of facts, Lonardo has demonstrated unavoidable delay within the meaning of 35 U.S.C. §133, and the renewed petition under 37 CFR §1.137(a) to revive the '365 application from abandonment is granted.

U.S. Patent and Trademark Office
Board of Patent Appeals and Interferences

Ex parte Levy

No. 90-1864

Decided October 16, 1990
Released November 8, 1990

PATENTS

1. Patentability/Validity — Anticipation — Identity of elements (§115.0704)

Factual determination of anticipation requires disclosure in single reference of every element of claimed invention, and examiner must identify wherein each and every facet of claimed invention is disclosed in applied reference.

2. Patentability/Validity — In general (§115.01)

Patentability/Validity — Anticipation — Prior art (§115.0703)

Initial burden of establishing prima facie basis to deny patentability rests upon examiner; examiner, if relying upon theory of inherency, must provide basis in fact and/or technical reasoning to reasonably support determination that allegedly inherent characteristic necessarily flows from teachings of applied prior art.

3. Patentability/Validity — Anticipation — Prior art (§115.0703)

Examiner erred by rejecting claims for biaxially oriented catheter balloon as anticipated by prior art which does not disclose such biaxially oriented balloon and which has not been shown to be inherently biaxially oriented.

4. Patentability/Validity — Obviousness — Relevant prior art — Particular inventions (§115.0903.03)

Examiner erred by rejecting claims for biaxially oriented balloon catheter under 35 USC 103 based upon combined disclosure of two prior art references, one of which was relied upon solely for disclosed use of high viscosity polyethylene terephthalate tubing and the other which was presupposed by examiner to disclose biaxially oriented catheter balloon, since examiner has not established that resulting catheter balloon using high viscosity tubing is biaxially oriented.

Application of Stanley B. Levy, serial no. 287,234, filed Dec. 21, 1988, which is a division of serial no. 914,108, filed Oct. 1, 1986, now Re. 32,983, granted July 4, 1989; and a reissue of serial no. 510,812, filed July 5, 1983, now patent no. 4,490,421, granted Dec. 25, 1984, for balloon and manufacture thereof. From examiner's rejection of claims 13 through 17 and 25 (James Seidleck, pri-

mary examiner), applicant appeals. Reversed.

Louis H. Rombach, Wilmington, Del., for appellant.

Before Steiner, Tarring, and J. Smith, examiners-in-chief.

Steiner, examiner-in-chief.

This is an appeal from the final rejection of claims 13 through 17 and 25, which are all of the claims remaining in this application for reissue of U.S. Patent No. 4,490,421.

The subject matter on appeal is directed to a polymeric balloon exhibiting properties which enable its use as a catheter balloon for medical dilation procedures, such as coronary angioplasty wherein a catheter with a balloon at a distal end thereof is inserted into coronary arteries and inflated. The balloon must be capable of exerting sufficient pressure to dilate stenotic lesions without rupture of the balloon.

Claims 13 and 25, the only independent claims on appeal, read as follows:

13. *High molecular weight, biaxially oriented, flexible polymeric balloon having a wall tensile strength of at least 31,714 psi (218.86 MPa).*

25. *High molecular weight, biaxially oriented, flexible polyethylene terephthalate dilatation catheter balloon.*

The references relied upon by the examiner are:

Wyeth et al. (Wyeth)	3,733,309	May 15, 1973
Schjeldahl et al.		
(Schjeldahl '89)	4,413,989	Nov. 8, 1983 ¹
Schjeldahl et al.		
(Schjeldahl '000)	4,456,00	June 26, 1984 ²

Claims 13, 14, 16, 17 and 25 stand rejected under 35 U.S.C. 102 as anticipated by Schjeldahl. Claims 13 through 17 stand rejected under 35 U.S.C. 103 based upon "Schjeldahl et al in view of Wyeth as set forth in the Final Rejection" (paragraph bridging pages 3 and 4 of the Answer). We reverse each rejection.

¹ Each of the Schjeldahl references contains essentially the same relevant disclosure. Accordingly, unless otherwise indicated, we have referred to these references collectively as "Schjeldahl," consistent with the approach adopted by both appellant and the examiner.

² See footnote 1.

The Rejection of Claims 13, 14, 16, 17 and 25 Under 35 U.S.C. §102.

[1] The factual determination of anticipation requires the disclosure in a single reference of every element of the claimed invention. *In re Spada*, ___ F.2d ___, 15 USPQ2d 1655 (Fed. Cir. 1990); *In re Bond*, ___ F.2d ___, 15 USPQ2d 1566 (Fed. Cir. 1990); *Diversitech Corp. v. Century Steps, Inc.*, 850 F.2d 675, 7 USPQ2d 1315 (Fed. Cir. 1988); *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 7 USPQ2d 1057 (Fed. Cir. 1988); *Alco Standard Corp. v. TVA*, 808 F.2d 1490, 1 USPQ2d 1337 (Fed. Cir. 1986); *In re Marshall*, 578 F.2d 301, 198 USPQ 344 (CCPA 1978); *In re Arkley*, 455 F.2d 586, 172 USPQ 524 (CCPA 1972). Moreover, it is incumbent upon the examiner to identify wherein each and every facet of the claimed invention is disclosed in the applied reference. *Lindemann Maschinenfabrik GmbH v. American Hoist and Derrick*, 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984).

Each of the independent claims on appeal defines a polymeric balloon which is "biaxially oriented." Ergo, in order to establish a *prima facie* basis to defeat the patentability of independent claims 13 and 25 under 35 U.S.C. §102, the examiner is obliged to point out where Schjeldahl discloses a *biaxially oriented* polymeric balloon. The tenor of the final rejection and Answer presupposes that Schjeldahl discloses a *biaxially oriented* polymeric balloon. See, for example, page 5 of the Final Rejection wherein the examiner states

[t]he reference clearly teaches a *biaxially oriented* balloon catheter, and states that it is made by injection blow molding. See, also, page 5 of the Answer wherein the examiner states

[a]rguments that the references don't disclose a *biaxially oriented* PET (polyethylene terephthalate) balloon catheter is contrary to what is *clearly stated* in the references (emphasis supplied).

The examiner does not point to, and we do not find, any express disclosure in Schjeldahl of a *biaxially oriented* polymeric balloon.

It would appear that the relevant evolutions in Schjeldahl which may have led the examiner to his determination are:

(a) an expander³ formed from a thin, flexible inelastic, high tensile strength, *biaxially oriented* synthetic plastic material

³ Schjeldahl characterizes the catheter balloon as an expander.

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[1] The factual determination of anticipation requires the disclosure in a single reference of every element of the claimed invention. *In re Spada*, ___ F.2d ___, 15 USPQ2d 1655 (Fed. Cir. 1990); *In re Bond*, ___ F.2d ___, 15 USPQ2d 1566 (Fed. Cir. 1990); *Diversitech Corp. v. Century Steps, Inc.*, 850 F.2d 675, 7 USPQ2d 1315 (Fed. Cir. 1988); *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 7 USPQ2d 1057 (Fed. Cir. 1988); *Alco Standard Corp. v. TVA*, 808 F.2d 1490, 1 USPQ2d 1337 (Fed. Cir. 1986); *In re Marshall*, 578 F.2d 301, 198 USPQ 344 (CCPA 1978); *In re Arkley*, 455 F.2d 586, 172 USPQ 524 (CCPA 1972). Moreover, it is incumbent upon the examiner to identify wherein each and every facet of the claimed invention is disclosed in the applied reference. *Lindemann Maschinenfabrik GmbH v. American Hoist and Derrick*, 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984).

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³ Schjeldahl characterizes the catheter balloon as an expander.

(column 2 of Schjeldahl '989, lines 63 through 65, emphasis supplied);

(b) The expander 30 is preferably formed from a suitable synthetic plastic material, such as *biaxially oriented* polypropylene, by an *injection blow molding operation* and, as such, is substantially inelastic in both the axial and radial directions and may, for example, have a finished wall thickness in the range of from 0.005 to 0.200 millimeters, 0.025 millimeters being typical (column 6 of Schjeldahl '989, lines 45 through 52, emphasis supplied);

(c) It has been found that an expander of the above-dimensional characteristics can withstand internal inflation pressure in excess of 7 atmospheres without fear of rupture (column 6 of Schjeldahl '989, lines 62 through 65);

(d) injection blow molding step used to form the expander 30 (column 8, lines 16 and 17);

(e) the expander 30 is formed from a *biaxially oriented* thin plastic material capable of withstanding relatively high internal pressures without rupture and without exceeding the elastic limit for the material itself (column 10 of Schjeldahl '989, lines 32 through 36, emphasis supplied);

(f) the expander 82 is preferably formed from a suitable synthetic plastic material such as *biaxially oriented polypropylene* or *biaxially oriented polyethylene terephthalate* by an *injection molding operation* and, as such, is substantially inelastic in both the axial and radial direction (column 12 of Schjeldahl '989, lines 22 through 37, emphasis supplied); and

(g) Apparatus as in claim 1 wherein said non-elastic expander member comprises a longitudinally extending thin, flexible, tubular element *formed from a biaxially oriented* synthetic plastic material surrounding said outer tubular member with opposed ends thereof secured to said outer tubular member at spaced apart locations proximate said distal end thereof (claim 8 of Schjeldahl '989, emphasis supplied).

These excerpts do not justify the determination that Schjeldahl discloses a *biaxially oriented* polymeric balloon.

According to Schjeldahl, the *starting material* is a *biaxially oriented* synthetic plastic material, such as polyethylene terephthalate. The *final article*, i.e., the expander or catheter balloon, is *not characterized as biaxially oriented*. Moreover, it would appear to be *undisputed* that the *only* method disclosed by Schjeldahl for transforming the *biaxially oriented starting plastic* into the *final catheter balloon*, i.e., injection blow molding, is

not capable of producing a *biaxially oriented* catheter balloon. In fact, it is *undisputed* that injection blow molding would *destroy* the *biaxial orientation* of the plastic starting material. We refer to the Belcher affidavits, Exhibits V, VI and VIII,⁴ which factually set forth the differences between "injection blow molding" and "injection stretch blow molding," and support the conclusion that the "injection blow molding" process disclosed by Schjeldahl could not possibly produce a *biaxially oriented* polymeric balloon.⁵

Indeed, the examiner agrees with appellant's position that injection blow molding could *not* produce a *biaxially oriented* balloon. See, for example, page 5 of the Final Rejection wherein the examiner states:

[s]tatements that injection blow molding without stretching will not produce a *biaxially oriented* article are *true* ... (emphasis supplied).

The examiner goes on, in the same sentence, to state:

but since the reference produces a *biaxially oriented* article, clearly a stretching step must be used.

Again, on page 5 of the Answer, the examiner states:

Since Schjeldahl et al produces a *biaxially oriented* article it follows that a stretching step must be used in the injection blow molding process.

The inescapable facts are that Schjeldahl does not disclose a *biaxially oriented* catheter balloon and does not mention a stretching step.

[2] The examiner also relies upon the theory that Schjeldahl's catheter balloon is inherently *biaxially oriented*. On page 4 of the Answer, the examiner points out that inasmuch as the Patent and Trademark Office does not have the requisite laboratory equipment for testing, the burden shifts to appellant. However, the initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention rests

⁴ Unless otherwise indicated, all exhibits mentioned are the exhibits to appellant's Brief.

⁵ We recognize that a high burden of proof is required to demonstrate the inoperability of a United States patent. *In re Weber*, 405 F.2d 1403, 160 USPQ 549 (CCPA 1969); *In re Michalek*, 162 F.2d 229, 74 USPQ 107 (CCPA 1947). However, as noted above, Schjeldahl does not disclose a catheter balloon made of a *biaxially oriented* plastic. Therefore, appellant's evidence is not an attack on the operability of Schjeldahl, but quite relevant to the issue of inherency, i.e., whether the catheter balloon disclosed by Schjeldahl is inherently *biaxially oriented*.

upon the examiner. *In re Piasecki*, 745 F.2d 1468, 223 USPQ 785 (Fed. Cir. 1984). In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. *In re King*, 801 F.2d 1324, 231 USPQ 136 (Fed. Cir. 1986); *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983); *In re Oelrich*, 666 F.2d 578, 212 USPQ 323 (CCPA 1981); *In re Wilding*, 535 F.2d 631, 190 USPQ 59 (CCPA 1976); *Hansgirk v. Kemmer*, 102 F.2d 212, 40 USPQ 665 (CCPA 1939). In our opinion, the examiner has not discharged that initial burden.

Schjeldahl does not provide any working example revealing the process conditions employed to produce the catheter balloon. We have only a general invitation to employ "injection blow molding." As previously discussed, it is undisputed that injection blow molding would not have produced a biaxially oriented balloon and would have destroyed the biaxially orientation of a polymeric starting material.

Schjeldahl does not disclose any particular tensile strength of the catheter balloon. We do not find sufficient factual basis or cogent scientific reasoning to support the conclusion that Schjeldahl's disclosure with respect to the ability of the catheter balloon to "withstand an internal inflation pressure in excess of 7 atmospheres without fear of rupture" (column 6 of Schjeldahl '989, lines 63 through 65) necessarily means that the catheter balloon is biaxially oriented. According to the membrane equation calculations reported in Levy's declaration (Exhibit IV), Schjeldahl's balloon could not possibly exhibit the tensile characteristics of a biaxially oriented balloon. Levy's calculations are inconsistent with those of Pinchuk (Exhibit III). Suffice it to say, the conflicting calculations taint the factual determination of inherency with impermissible conjecture. Indeed, the examiner, in the paragraph bridging pages 4 and 5 of the Answer, states that

the membrane equation used to determine the tensil [sic, tensile] strength can be manipulated to produce any desired value, and thus is misleading.

Nevertheless, the examiner goes on to favor Pinchuk's calculations by stating in that same paragraph that

[c]ertainly use of the typically used wall thickness disclosed in Schjeldahl et al with the average radius, as done in the Pinchuk Declaration would be reasonable.

As noted above, the conflicting results obtained by applying the membrane equation, and the examiner's acknowledgment that that equation "can be manipulated to produce any desired value," underscore the speculative nature upon which the determination of inherency rests.

We do not find sufficient cogent technical reasoning and/or objective evidence to support the conclusion that Schjeldahl's characterization of the catheter balloon as inelastic in the axial and radial direction necessarily means that the catheter balloon is biaxially oriented. The characteristic "inelastic," as employed by Schjeldahl, apparently means that the catheter balloon will expand to a preformed diameter to enable precise measurement of the pressures exerted on the inner wall of the artery during the dilation procedure (column 4 of Schjeldahl '989, lines 12 through 17).

[3] In summary, Schjeldahl does not disclose a biaxially oriented catheter balloon. We do not find a sufficient basis to support the determination that Schjeldahl's balloon is inherently (necessarily) biaxially oriented. *In re King*, supra; *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, supra; *In re Oelrich*, supra; *In re Wilding*, supra; *Hansgirk v. Kemmer*, supra. Accordingly, the examiner's rejection of claims 13, 14, 16, 17 and 25, under 35 U.S.C. §102 as anticipated by Schjeldahl is reversed.⁶

The Rejection of Claims 13 through 17 under 35 U.S.C. §103 Based upon the Combined Disclosures of Schjeldahl and Wyeth.

Wyeth is directed to producing high strength biaxially oriented polyethylene terephthalate beverage containers. The disclosed method involves stretching polyethylene terephthalate having a relatively high inherent viscosity; e.g., at least about 0.85.

⁶ There is evidence of record that Dupont, the assignee of the application, furnished biaxially oriented polyethylene terephthalate to Schjeldahl when he informed Dupont personnel that he required a thin, high strength polymeric film having a tensile strength in the range of 20,000-40,000 psi. See the Schjeldahl affidavit (Exhibit VIII) and the Dengler declaration executed on May 21, 1988 and appended to the protest submitted in parent application Serial No. 914,108. Such facts are not inconsistent with our determination that Schjeldahl does not disclose a biaxially oriented polyethylene terephthalate catheter balloon. The Rydell affidavit appended to the protest in the parent application does not persuade us that Schjeldahl expressly or inherently discloses a biaxially oriented polymeric catheter balloon. See Belcher's affidavit (Exhibit VI).

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hibit VI).

It is apparent from the Final Rejection and Answer that the examiner's rejection of the appealed claims under 35 U.S.C. 103 is not predicated upon the theory that one having ordinary skill in the art would have been led to employ Wyeth's technique to produce a biaxially oriented balloon for use in Schjeldahl's catheter. Instead, the examiner presupposes that Schjeldahl discloses a biaxially oriented catheter balloon. The examiner relies upon Wyeth *solely* for the disclosed use of high viscosity polyethylene terephthalate tubing. We refer to page 6 of the Answer, first complete paragraph, wherein the examiner explains the rejection by stating:

Wyeth et al is not being combined with Schjeldahl et al, but merely shows the claimed high viscosity PET (polyethylene terephthalate) and supports the examiners [sic, examiner's] inherency arguments.⁷

... The examiner is not substituting the process of Wyeth et al into Schjeldahl et al since both disclose the same process.⁸ Arguments that Wyeth et al can't be scaled down are irrelevant since the examiner is not seeking to scale down that reference to produce the claimed article.

[4] We have already concluded that the examiner factually erred in determining that Schjeldahl expressly or inherently discloses a biaxially oriented catheter balloon. Assuming, *arguendo*, the examiner correctly concluded that one having ordinary skill in the art would have been led to employ a high viscosity polyethylene terephthalate tubing in producing Schjeldahl's catheter balloon, the rejection under 35 U.S.C. §103 must fall because the examiner has not established that the resulting catheter balloon is biaxially oriented. *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988).

Inasmuch as the examiner's rejection under 35 U.S.C. §103 is not predicated upon the theory that one having ordinary skill in the art would have been led to employ a conventional stretch blow molding technique, such as that disclosed by Wyeth, to

produce Schjeldahl's catheter balloon, the motivation for such a combination is an issue which was not crystallized on appeal and was not confronted by appellant. However, in view of the examiner's gratuitous statement in the paragraph bridging pages 5 and 6 of the Answer,⁹ we are constrained to address that issue.

There appears to be no dispute that one having ordinary skill in the art would have recognized the desirability of producing a biaxially oriented balloon for use in Schjeldahl's catheter, since biaxially oriented materials were known to exhibit high tensile strengths. The thrust of the evidence relied upon by the examiner is that one having ordinary skill in the art would have simply resorted to a conventional stretch molding technique to produce a biaxially oriented balloon for use in Schjeldahl's catheter, specifically, *the technique employed by Wyeth to produce a beverage container*. See paragraph 4 of the Rydell affidavit executed April 25, 1988 and offered in support of the protest in parent application Serial No. 914,108, paragraph 5 of the Pinchuk affidavit (Exhibit III), and paragraphs 4 and 5 of the Kaufman affidavit (Exhibit XII). Interestingly enough, *Wyeth disagrees*. See page 5 of Wyeth's declaration (Exhibit XI). Wyeth points out various differences between the PET bottles produced by his disclosed process and the requirements of a catheter balloon, and then concludes that his process could *not* be used to produce a catheter balloon of the type disclosed by Levy.

We are persuaded by Belcher's affidavits and Wyeth's declaration, notwithstanding the affidavits of Rydell, Pinchuk and Kaufman,¹⁰ that the known processes for produc-

⁷ The noted statement provides:

Certainly in the least there was an *invitation* to make a biaxially oriented catheter balloon at the time of the Schjeldahl et al invention. Additionally injection stretch blow molding to produce biaxially oriented articles was well known at the time of the Schjeldahl et al invention (emphasis supplied).

¹⁰ We agree with appellant that the credentials of Belcher and Wyeth in the relevant art appear more impressive than those of protestor's experts. According to the affidavit appearing as Appendix V, Belcher authored the chapter called "Blow Molding of Polymers" for the fifth edition of the Plastic Engineering Handbook of the Society of Plastics Industry. In addition, Belcher authored two chapters, one on "injection blow molding" and one on "stretch blow molding" for the Blow Molding Handbook of the Society of Plastics and Engineers. We consider Wyeth's opinion with respect to the capabilities of his own invention entitled to greater weight than the opinions of Rydell, Pinchuk and Kaufman.

⁷ Actually, according to the Final Rejection which is incorporated in the Answer,

[i]t is the Examiner's position that it would be *prima facie* obvious to use the high viscosity polyethylene terephthalate of Wyeth in Schjeldahl et al to produce the claimed product (page 4, the only complete paragraph).

⁸ It is apparent from our reversal of the examiner's rejection under 35 U.S.C. §102 that, in our opinion, Schjeldahl discloses neither a biaxially oriented catheter balloon nor a molding process which involves stretching.

ing biaxially oriented beverage containers, such as that disclosed by Wyeth, could not have been simply scaled down to produce a biaxially oriented catheter balloon for use in medical dilation procedures without the exercise of inventive skill.¹¹ Based upon the record before us, it would appear unrealistic to conclude that one having ordinary skill in the art would have been led to employ Wyeth's technique, which is designed to produce beverage containers, to produce Schjeldahl's catheter balloon, motivated by a *reasonable expectation* of obtaining a *biaxially oriented polymeric catheter balloon*. *In re O'Farrell*, 853 F.2d 894, 7 USPQ2d 1673 (Fed. Cir. 1988). The rejection under 35 U.S.C. §103 is also reversed.

REVERSED.

**U.S. Patent and Trademark Office
Trademark Trial and Appeal Board**

The Ritz Hotel Limited v. Ritz Closet Seat Corp.

Opposition No. 78,707

Decided September 24, 1990

TRADEMARKS AND UNFAIR TRADE PRACTICES

1. Practice and procedure in Patent and Trademark Office — Interpartes proceedings — Standing (§325.0303)

Practice and procedure in Patent and Trademark Office — Interpartes proceedings — Opposition and cancellation — Rules and rules practice (§325.0305.05)

Opposer may, on rebuttal, introduce facts and witnesses appropriate to deny, explain,

¹¹ We find it somewhat unrealistic in light of the apparent disparities in size and function, Belcher's affidavits and Wyeth's declaration, that Pinchuk and Kaufman equate beverage bottles to catheter balloons. See paragraph 10 of the Pinchuk affidavit (Exhibit III), wherein it is stated

[a]s a blow molded polymeric article, a bottle and a catheter balloon are equivalent.

See, also, paragraph 4 of the Kaufman affidavit (Exhibit XII), wherein it is stated that

anyone with ordinary skill in the plastics art would know how to make a biaxially oriented PET balloon; it would be similar to making a biaxially oriented PET bottle because both catheter balloons and bottles are equivalent structures — they are both fluid containers.

or otherwise discredit applicant's facts and witnesses, but testimony of opposer's witnesses that was directed toward applicant's testimony regarding damage should have been introduced, if at all, as part of opposer's case-in-chief, since damage issue has relevance only to opposer's standing to be heard; since applicant's testimony has not challenged opposer's standing, testimony given by opposer's witnesses during rebuttal period is improper.

2. Acquisition, assignment, and maintenance of marks — Scope of trademark — Expansion of goods/territory (§305.0206)

Trademark owner possesses rights in mark sufficient to preclude subsequent user's registration of same or substantially similar mark not only for like or similar goods, but for any goods which might reasonably be expected to emanate from it in normal expansion or extension of its business; personal luxury items are clearly within natural scope of expansion of opposer's business, which is providing hotel services under mark "Ritz," but toilet seats are not within such natural expansion of business.

3. Infringement; conflicts between marks — Likelihood of confusion — Relatedness of goods or services — Not similar (§335.0305.05)

Applicant's toilet seats, sold under mark "Rit-Z," are not likely to be attributed to opposer, which provides hotel services and sells luxury items under mark "Ritz."

4. Registration and its effects — Non-registrable subject matter — Immoral, deceptive, scandalous (§315.0403)

Opposer, in order to succeed on claim under Trademark Act's Section 2(a), must demonstrate that applicant's mark is same as, or close approximation of, opposer's name or identity, that applicant's mark would be recognized as such, that opposer is not connected with applicant's activities under its mark, and that opposer's name or identity is of sufficient fame or reputation that when applicant's mark is used on its goods, connection to opposer would be presumed; opposer which has failed to show connection of applicant's mark "Rit-Z," for toilet seats, with its hotel services and goods under mark "Ritz" has failed to prove that applicant's use of its mark points uniquely to opposer and thus has failed to set forth claim under Section 2(a).

Did the board err in concluding that there is an interference in fact?

Opinion

[1, 2] Westphal says his contention that the compound claims are unpatentable to Fawzi is based on a "late claiming" doctrine. We agree with the conclusion of the board that Westphal did not thereby raise an issue ancillary to priority and that the board therefore need not consider it. *Anderson v. Scinta*, 54 CCPA 1269, 372 F.2d 523, 152 USPQ 584 (1967).

The board is charged with determining priority of invention. The courts have recognized that certain issues of patentability so affect that determination as to be labeled ancillary to priority, and have held that those issues are subject to consideration by the board. Westphal's contention, however, raises no issue of priority of invention, and no statutory issue affecting the determination of priority. That Westphal couches his argument in non-statutory "late claiming" terms is of no moment. That rubric implicates new matter and lack of support considerations under 35 USC 112. See *In re Goldman*, 205 USPQ 1086 (Comm'r Pat. 1980). Westphal recognizes that Fawzi's disclosure provides adequate support under §112 and thus that Fawzi has a right to make the count. Thus, no question of "late claiming," properly understood, is before us.

[3] The origin of what has been called a "late claiming" doctrine is found in *Muncie Gear Works, Inc. v. Outboard Marine & Mfg. Co.*, 315 U.S. 759, 53 USPQ 1 (1942). It is unnecessary here to repeat the many detailed analyses and dissections of the opinion in that case. The interpretation of the Second Circuit, relied on by Westphal, is that *Muncie Gear* enunciated a new "late claiming" doctrine whereby later-presented claims, whether or not directed to subject matter within the original disclosure, may be barred by intervening rights under §102(b). See *Kahn v. Dynamics Corp. of America*, 508 F.2d 939, 184 USPQ 260 (CA 2 1974), cert. denied, 421 U.S. 930, 185 USPQ 505 (1975); *Maclaren v. B-I-W Group, Inc.*, 401 F. Supp. 283, 187 USPQ 345 (S.D.N.Y. 1975). We reject that interpretation in favor of one more widely endorsed,¹ namely that the holding in *Muncie*

Gear, that claims were invalid "if there was public use, or sale, * * * more than two years before the first disclosure thereof to the Patent Office" (emphasis added),² is an application of the statutory prohibition against the introduction by amendment, after the filing date, of additional disclosure in an application and of claims directed thereto.

[4] Interpreting *Muncie Gear* as concerned with a "new matter" issue (*In re Goldman*, supra), the PTO in this case properly refused to recognize the validity of deriving a "late claiming" doctrine from the opinion in *Muncie Gear*. The PTO evaluates later submitted claims on the basis of adequacy of support in the original disclosure. An amendment of a claim or a later filed claim does not change the "date of the application" as the reference date for applicability of the time bars in §102(b). Further, the effective "date of the application," insofar as the disclosure in the specification is concerned, is the date on which the applicant has satisfied the requirements of §112. Though introduction of new matter into the disclosure falls under the prohibition of 35 USC 132, later submitted claims need only be reviewed for support in the original disclosure under §112, first paragraph. *In re Rasmussen*, 650 F.2d 1212, 211 USPQ 323 (CCPA 1981).

[5] If Westphal had presented a "late claiming" argument, properly understood, it would have raised only the question of whether Fawzi had adequate support in his disclosure, as of its filing date, for the later-submitted compound claims. The parent application of Fawzi, though initially containing only method-of-use claims, fully disclosed the compounds per se. Fawzi's continuation application, by definition, included that disclosure. Hence the November 28, 1966 filing date of Fawzi's parent application is the effective date of the disclosure supporting the compound claims.

As above indicated, Westphal does not contest the presence of §112 support for the compound claims in Fawzi's parent application, but argues that the effective date to

which the §102(b) statutory bars are applicable is the date of presentation (November 26, 1969) of the compound claims. For the reasons discussed above, the pertinent statutory provisions do not permit Westphal's interpretation. Accordingly, "late claiming," as set forth by Westphal, is not a viable doctrine and cannot raise an issue ancillary to priority.

Westphal further contends that there is no interference in fact because the branched alkyl compounds recited in his claims are patentably distinct from the generic alkyl compounds of the Fawzi claims. The board found the documentary evidence and expert testimony offered by Westphal in support of his claim of patentable distinctness to be entitled to little weight, citing inconsistencies and unsupported statements in the testimony and concluding that identification of the tested compounds was based on hearsay. However, even accepting Westphal's documentary evidence and expert testimony as probative and admissible under the business records exception to the hearsay rule,³ we conclude that there was no error in the board's determination of no patentable distinctness.

Affirmed.

Court of Customs and Patent Appeals

In re Oelrich and Divigard

No. 81-564

Decided Dec. 10, 1981

PATENTS

1. Court of Customs and Patent Appeals — Issues determined — Ex parte patent cases (§28.203)

Prior adjudication — Applications for patent (§56.05)

Doctrine of res judicata argued in view of former case in which issue was obviousness is not applicable to instant anticipation rejection; furthermore, res judicata does not have its usual impact when considering ex parte patent appeals; public interest in

Co., 431 F.2d 1074, 167 USPQ 129 (CA 6 1970), cert. denied, 401 U.S. 956, 168 USPQ 737 (1971); *Pursche v. Atlas Scraper & Engineering Co.*, 300 F.2d 467, 132 USPQ 104 (CA 9 1961).

² 315 U.S. at 761, 53 USPQ at 5. Under the provision applicable at that time, R.S. 4886, the period was two years. Under the corresponding provision, 35 USC 102(b), of the present statute, the period is one year.

³ Federal Rule of Evidence 803(6).

¹ See, e.g., *Chicopee Mfg. Corp. v. Kendall Co.*, 288 F.2d 719, 129 USPQ 90 (CA 4 1961); *Acme Highway Products Corp. v. D.S. Brown*

granting valid patents outweighs public interest underlying collateral estoppel and res judicata, particularly where issue presented is not substantially identical to that previously decided.

2. Patentability — New use or function — In general (§51.551)

Mere recitation of newly discovered function or property, inherently possessed by things in prior art, does not distinguish claim drawn to those things from prior art.

3. Construction of specification and claims — "Means" claims (§22.60)

Pleading and practice in Patent Office — Rejections (§54.7)

Rejection of claim whose distinguishing feature is words after means for function phrase is reversed where those words constitute limiting definition of means that is not expressly disclosed in reference nor inherent in it.

Particular patents — Control Mechanism

Oelrich and Divigard, Sub-Critical Time Modulated Control Mechanism, rejection of claim 1 reversed.

Appeal from Patent and Trademark Office Board of Appeals.

Application for patent of John A. Oelrich and Albert J. Divigard, Serial No. 452,050, filed Mar. 18, 1974. From decision rejecting claim 1, applicants appeal. Reversed.

See also 198 USPQ 210.

Roger A. Van Kirk, East Hartford, Conn., for appellants.

Joseph F. Nakamura and Thomas E. Lynch for Patent and Trademark Office.

Before Markey, Chief Judge, and Rich, Baldwin, Miller, and Nies, Associate Judges.

Rich, Judge.

This appeal is from the decision of the United States Patent and Trademark Office (PTO) Board of Appeals (board) sustaining the examiner's rejection of claim 1 in application serial No. 452,050, filed March 18, 1974, entitled "Sub-Critical Time Modulated Control Mechanism," under 35 USC 102 as anticipated by appellant Oelrich's U.S. patent No. 3,430,536 for "Time Modulated Pneumatically Actuated

Control Mechanism," issued March 4, 1969. We reverse.

Background

This application was the subject of In re Oelrich, 579 F.2d 86, 198 USPQ 210 (CC-PA 1978), in which a rejection of claims 1-5 under 35 USC 103 was reversed. Appellant's method claims 2-5 now stand allowed.

The invention of claim 1 is directed to an apparatus specially adapted for moving low inertia steering fins on guided missiles. The prior art apparatus and the theory upon which it operates are fully discussed in our above prior opinion and will, therefore, not be repeated here. Generally, the claimed device responds to an electric signal from a missile guidance system, the magnitude of which is proportional to the desired amount of course-correcting fin movement, and converts the signal into a pneumatic pressure of appropriate magnitude which acts on a piston to move the missile guiding fin. The device which is the subject of the Oelrich patent "was employed only with the then available steering fins which they characterize as 'high inertia' loads." The frequency at which this "high inertia" load system is operated is stated to be *above* the critical (resonant) frequency of the system. 579 F.2d at 87-89, 198 USPQ at 212-13. The allowed method claims and apparatus claim 1 direct use of a carrier frequency *below* the critical frequency of the system.

Claim 1 reads (emphasis ours):

1. A time modulated fluid actuated control apparatus comprising:

housing means, said housing means defining a cylinder;

actuator piston means disposed in said housing means cylinder, said piston means including an output member adapted to be connected to a movable load, said load and control apparatus

¹ While the solicitor equates "low-inertia" with a "relatively light load" and "high-inertia" with a "relatively heavy load," appellants are not as unequivocal. They refer to "small inertia" and "low inertia" loads, but, for example, the Divigard affidavit refers to "Fin Inertia" in terms of "in-lb sec²/rad," a unit of measure applicable only in referencing *moment of inertia*, not *inertia*. The difference is significant because inertia, measured in terms of *mass*, is closely related to *weight*, while *moment of inertia* is affected by the *distribution* of the mass. Because of this ambiguity, we cannot and do not use the terms "weight" and "inertia" interchangeably.

"Control Mechanism," issued March 4, 1978. We reverse.

Round

This application was the subject of *In re Oelrich*, 579 F.2d 86, 198 USPQ 210 (CCPA 1978), in which a rejection of claims 1-5 under 35 USC 103 was reversed. Appellant's method claims 2-5 now stand.

The invention of claim 1 is directed to an apparatus specially adapted for moving low inertia steering fins on guided missiles. The apparatus and the theory upon which it operates are fully discussed in our prior opinion and will, therefore, not be repeated here. Generally, the claimed apparatus responds to an electric signal from a guidance system, the magnitude of which is proportional to the desired amount of fin movement, and converts the signal into a pneumatic pressure of appropriate magnitude which acts on a piston to move the missile guiding fin. The fin, which is the subject of the Oelrich patent, was employed only with the then available steering fins which they characterized as "high inertia" loads.² The frequency at which this "high inertia" load is operated is stated to be *above* the critical (resonant) frequency of the system. 579 F.2d at 87-89, 198 USPQ at 212-13. Allowed method claims and apparatus claim 1 direct use of a carrier frequency above the critical frequency of the system. Claim 1 reads (emphasis ours):

A time modulated fluid actuated control apparatus comprising: housing means, said housing means defining a cylinder; actuator piston means disposed in said housing means cylinder, said piston means including an output member adapted to be connected to a movable load, said load and control apparatus

while the solicitor equates "low-inertia" with "relatively light load" and "high-inertia" with a "relatively heavy load," appellants are not as unhelpful. They refer to "small inertia" and "low inertia" loads, but, for example, the Divigard affidavit refers to "Fin Inertia" in terms of "inertia," a unit of measure applicable only in the case of *rotational* inertia. The issue is significant because inertia, measured in terms of mass, is closely related to weight, while inertia is affected by the *distribution* of mass. Because of this ambiguity, we cannot not use the terms "weight" and "inertia" interchangeably.

defining a system having a range of resonant frequencies;

solenoid operated valve means mounted on said housing means, said valve means being selectively operable to deliver pressurized fluid to and to vent fluid from said housing means cylinder at one side of said piston means;

means for generating variable input command signals commensurate with the desired position of the load, said command signals being characterized by a dynamic frequency range below said range of said resonant frequencies;

means for generating a signal at a carrier frequency, said carrier frequency being greater than the maximum dynamic command signal frequency and less than the minimum system resonant frequency;

means for modulating said carrier frequency signal by said command signals; and

means responsive to said modulated carrier frequency signal for controlling energization of said solenoid operated valve means.

In sustaining the examiner's rejection under §102, the board expressed agreement with his reasoning, which is here summarized. Stating that "the issue is identical to that decided in *In re Ludtke*, 58 CCPA 1159, 441 F.2d 660, 169 USPQ 563 (1971)," the examiner noted that, for purposes of determining inherency, "the question is, does Oelrich [the reference patent] disclose a signal generator that necessarily must supply the carrier frequencies that appellants use?" The examiner turned to Exhibit A of coapplicant Divigard's affidavit, which states as an assumption in a "Linearized Simulation" of a "high inertia" load system that the critical resonance frequency must be kept below 80 Hz to avoid interaction with the carrier frequency which is between 100 and 150 Hz. Thus, the examiner concluded, "Exhibit A establishes Oelrich's carrier frequency range, which may now be compared with the carrier frequency range of applicants' low-inertia system." It was then asserted that the Oelrich and Kolk affidavits establish that good low inertia system design practice dictates a carrier frequency range of 95-190 Hz. Since the carrier frequency range for the high inertia system lies within the range for the low inertia system, and since the critical frequency of the low inertia system is near the solenoid limit of 175 Hz, the examiner posited that the Oelrich carrier frequencies would be sub-critical in the low inertia system, saying, "Thus Oelrich's signal

generator does in fact inherently produce frequencies which would be sub-critical when used with a low-inertia system, and therefore, inherently supplies a carrier frequency range which is usable in applicants' system since this conclusion was deduced from specific data presented in the patent and in the affidavits supplied by appellants." The appellants also asserted our prior decision was *res judicata*.

Opinion

[1] Although appellants' arguments on appeal are directed primarily to a discussion of *res judicata*³ and whether a "product which is unwittingly produced is anticipation," resolution of this case is properly had by comparison of the reference patent to the limitations of claim 1. As will appear, the determinative issue is a question of inherency.

The distinguishing feature of claim 1 is defined in the paragraph which states that the apparatus contains a

means for generating a * * * carrier frequency * * * greater than the maximum dynamic command signal frequency and less than the minimum system resonant frequency.⁴

Given that the carrier frequency which can be used in a low inertia system may fall within the range of carrier frequencies usable in a high inertia system (appellants admit as much), the PTO urges that the apparatus of the Oelrich patent inherently performs the function of the apparatus of claim 1, and that finding a new use for an old device does not entitle one to an apparatus claim for that device, citing *In re Wiseman*, 596 F.2d 1019, 201 USPQ 658 (CCPA 1979). Appellants in that case argued, however, that a structure suggested by the

² The doctrine of *res judicata*, argued in view of our decision in *In re Oelrich*, 579 F.2d 86, 198 USPQ 210 (CCPA 1978), is not applicable to the instant rejection. The issue in the former case was obviousness; here it is anticipation. A new rejection is before us. Furthermore, *res judicata* does not have its usual impact when considering ex parte patent appeals; the public interest in granting valid patents outweighs the public interest underlying collateral estoppel and *res judicata*, particularly where the issue presented is not substantially identical to that previously decided. *In re Russell*, 58 CCPA 1081, 1083, 439 F.2d 1228, 1230, 169 USPQ 426, 428 (1971); *In re Craig*, 56 CCPA 1438, 1441-42, 411 F.2d 1333, 1335-36, 162 USPQ 157, 159 (1969).

³ Emphasis is ours. Portions of the claim unnecessary to this discussion have been omitted for clarity.

prior art was patentable to them because it also possessed an *inherent but unknown* function which they claimed to have discovered. This court stated that a "patent on such a structure would remove from the public that which is in the public domain by virtue of its inclusion in, or obviousness from, the prior art." *Id.* at 1023, 201 USPQ at 661.

Appellants here countered the PTO inherency contention at oral argument (no reply brief was filed) by urging that there is no "inherency" because there is no "inevitability," that is, the previously quoted "means plus function" limitation of claim 1 is not inherently (always) present in the device of the Oelrich patent.

[2] It is true that mere recitation of a newly discovered function or property, inherently possessed by things in the prior art, does not distinguish a claim drawn to those things from the prior art. *In re Swinehart*, 58 CCPA 1027, 1031, 439 F.2d 210, 212-13, 169 USPQ 226, 229 (1971). In this case, however, claim 1 does not merely recite a newly discovered function of an old device. *In re Chandler*, 45 CCPA 911, 254 F.2d 396, 117 USPQ 361 (1958), a case not cited by either party to this appeal, is most pertinent to the instant controversy.

The claim in *Chandler*, *id.* at 912-13, 254 F.2d at 397, 117 USPQ at 361-62, drawn to an automatic control for a jet engine, included a "means responsive to said movement for regulating the propulsive power of said engine, in accordance with said movement, so that said aircraft is propelled at a definite, selected speed, corresponding to the position of said engine relative to said aircraft, throughout the speed range of said aircraft." (Emphasis added.) In refuting the examiner's argument that the words beginning with "so that" were merely functional, and thus did not distinguish the device from that claimed in a patent to Goddard, this court stated:

* * * the expression beginning with "so that" is not merely functional, but constitutes a part of the definition of the "means responsive to said movement." Thus that means is defined as being responsive to the movement of the engine in such a way that the aircraft will be propelled at a definite speed in the manner specified. Such a definition conforms to the provision of 35 U.S.C. 112 that an element in a claim for a combination "may be expressed as a means or step for performing a specified function

without the recital of structure, material or acts in support thereof."

[3] Likewise, the words after "means for generating a * * * carrier frequency" in the claim on appeal constitute a limiting definition of the means. The PTO does not contend that this limitation, a carrier frequency which is "less than the minimum system resonant frequency," is expressly disclosed in the Oelrich patent. Neither, however, is this limitation inherent therein. *In Hansgirk v. Kemmer*, 26 CCPA 937, 940, 102 F.2d 212, 214, 40 USPQ 665, 667 (1939), the court said:

Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient. [Citations omitted.] If, however, the disclosure is sufficient to show that the natural result flowing from the operation as taught *would* result in the performance of the questioned function, it seems to be well settled that the disclosure should be regarded as sufficient.

The relationship between the carrier frequency and the system critical frequency — the former below the latter (and expressly made a claim limitation by use of "means plus function" language) — cannot be said to be "the natural result flowing from the operation as taught." The Oelrich patent instructs that the device is "adapted to receive a carrier frequency substantially in excess of the particular system critical or resonant frequency * * *." Given this express teaching, a "means for generating a * * * carrier frequency * * * less than the minimum system resonant frequency" is not *inevitably* present.

The decision of the board is *reversed*.
Reversed.

* For a similar case, see *In re Wilson*, 53 CCPA 1141, 1148-49, 359 F.2d 456, 461, 149 USPQ 523, 527 (1966). The provision of §112 referred to is, of course, the sixth paragraph, formerly, at the times of *Chandler* and *Wilson*, the third paragraph. The change occurred January 24, 1978.

conceal material information related to prior art against the Swin patents.

38. Likewise, the court finds that neither Swin nor anyone remotely affiliated with the application process misled or concealed material information. Swin, Jr. testified that he candidly disclosed all material information and denied all allegations of misconduct. The Swin application did disclose machining and the Gelbard method which is indicative of lack of intent to deceive.

Conclusions of Law

39. All patent applicants have a duty of candor and good faith in his or her dealings with the PTO. 37 C.F.R. § 1.56.

40. Patent unenforceability is a statutory defense. 35 U.S.C. § 282(1).

41. A patent is unenforceable when those involved in its procurement engaged in inequitable conduct before the PTO. See *J.P. Stevens & Co. v. Lex Tex Ltd., Inc.*, 747 F.2d 1553, 1560-61 [223 USPQ 1089] (Fed. Cir. 1984).

42. Inequitable conduct occurs when the applicant and/or their representative misrepresents a material fact, fails to disclose material information, or submits false material information with the intent to deceive. *Pro-Mold & Tool Co., Inc. v. Great Lakes Plastics*, 75 F.3d 1568, 1575 [37 USPQ2d 1626] (Fed. Cir. 1996). Materiality and intent must be proven by clear and convincing evidence. *Kingsdown Med. Consultants, Ltd. v. Hollister Inc.*, 863 F.2d 867, 872 [9 USPQ2d 1384] (Fed. Cir. 1988).

43. Applicants are not duty bound to disclose all prior art. To the contrary, applicants need only disclose prior art which is material to the examination of the patent application. Material information is material where there is a substantial likelihood that a reasonable examiner would consider it important in deciding whether to allow the application to issue as a patent. 37 C.F.R. § 1.56 (a). See *LaBounty Mfg. Inc. v. U.S. Int'l Trade Comm'n*, 958 F.2d 1066, 1074 [22 USPQ2d 1025] (Fed. Cir. 1992). The applicant has no obligation to disclose an otherwise material reference if the reference is cumulative or less material than information already submitted to the examiner. *Halliburton Co. v. Schlumberger Tech. Corp.*, 925 F.2d 1435, 1439 [17 USPQ2d 1834] (Fed. Cir. 1991).

44. In determining whether uncited prior art is more material than that before the examiner, the court focuses on the similarities, if any, between the prior art and the claims of the patent being prosecuted. *Halliburton*, 925 F.2d at 1439.

45. Inequitable conduct defense requires proof of intent which must be proven by clear and convincing evidence. *Halliburton*, 925 F.2d at 1442; *Kingsdown Med. Consultants*, 863 F.2d at 872. Intent can be inferred if the circumstantial evidence indicates that the applicant acted with the intent to deceive. *Halliburton*, 925 F.2d at 1442.

[1] 46. Nippondenso has failed to produce clear and convincing evidence that Tec Air engaged in inequitable conduct. The Gelbard method was the best prior art against the Swin patents at the time of the Swin patents' prosecution. The brass plug method was cumulative art since it is a variation of machining which Swin disclosed during the patent prosecution. Brass plugs differ from the Swin method since brass plugs entail immobile rods which are drilled into the mold, while Swin utilizes adjustable screws without cutting away the metal mold. Hence, the brass plug method was immaterial to the Swin patent since it did not teach the adjustable screw technology. Assuming the brass plugs method was material, its existence was adequately disclosed since it is a variation of machining which Swin disclosed to the PTO.

47. Swin's candid disclosure coupled with the convincing testimony of his expert witnesses was clearly more persuasive than that offered by Nippondenso. Swin's disclosure of all material prior art negates any inference that he or anyone associated with the patent prosecution intentionally misled or failed to disclose information material to the patent prosecution. Accordingly, the court hereby finds that Tec Air did not engage in inequitable conduct and that the Tec Air '692 and '257 patents are therefore enforceable.

CONCLUSION

For the reasons set forth above, the court finds that Nippondenso has failed to prove by clear and convincing evidence that Tec Air engaged in inequitable conduct with respect to its prosecution of the Swin '692 and '257 patents. Accordingly, the court finds the patents to be enforceable.

U.S. Court of Appeals Federal Circuit

In re Robertson

No. 98-1270

Decided February 25, 1999

PATENTS

1. Patentability/Validity — Anticipation — In general (§115.0701)

Element of claim is not "inherent" in

disclosure of prior art reference unless extrinsic evidence clearly shows that missing descriptive matter is necessarily present in thing described in reference, and that it would be so recognized by persons of ordinary skill; inherency may not be established by mere probabilities or possibilities, and mere fact that certain thing may result from given set of circumstances is not sufficient.

2. Patentability/Validity — Anticipation — Identity of elements (§115.0704)

Board of Patent Appeals and Interferences improperly rejected application claim for fastening and disposal system for diapers on ground that prior reference inherently contained all elements of claim, since board failed to recognize that third mechanical fastening means of application claim, used to secure diaper for disposal, was separate from and independent of two other means used to attach diaper to wearer, and since board's theory that two fastening devices in reference were capable of being intermingled to perform same function as third and first fastening elements in application claim rests upon mere probability or possibility that is insufficient to establish inherency.

Appeal from the U.S. Patent and Trademark Office, Board of Patent Appeals and Interferences.

Patent application of Anthony J. Robertson and Charles L. Scripps, serial no. 08/171,484 (fastening and disposal system for diapers). Applicants appeal from rejection of application claim 76 on grounds of anticipation and obviousness. Reversed; Rader, J., concurring in separate opinion.

Kenneth R. Adamo and Calvin P. Griffith, of Jones, Day, Reavis & Pogue, Cleveland, Ohio; Gregory A. Castanias, of Jones, Day, Reavis & Pogue, Washington, D.C.; Steven W. Miller, of Procter & Gamble Co., Cincinnati, Ohio, for appellants.

Linda Moncys Isacson, associate solicitor, Albin F. Drost, acting solicitor, and John M. Whealan, associate solicitor, U.S. Patent and Trademark Office, Arlington, Va., for appellee.

Before Newman, circuit judge, Friedman, senior circuit judge, and Rader, circuit judge.

Friedman, S.J.

This appeal challenges the decision of the Board of Patent Appeals and Interferences

(Board) that claim 76 in the appellants' patent application was anticipated by and obvious over United States Patent No. 4,895,569 (the Wilson patent). We reverse.

I

Both claim 76 and Wilson involve fastening and disposal systems for diapers. In both, the body of the diaper features a small front and a larger rear section. The outer edges of those sections are attached at the wearer's waist in the hip area. Once the diaper is soiled and then removed, the smaller front section is rolled up into the larger rear section and secured in this rolled-up configuration by fasteners.

The appellants' application is for "an improved mechanical fastening system for ... disposable absorbent articles [i.e., diapers] that provides convenient disposal of the absorbent article." [J.A. 12] Claim 76 covers:

[A] mechanical fastening system for forming side closures ... comprising a closure member ... comprising a first mechanical fastening means for forming a closure, said first mechanical fastening means comprising a first fastening element; a landing member ... comprising a second mechanical fastening means for forming a closure with said first mechanical fastening means, said second mechanical fastening means comprising a second fastening element mechanically engageable with said first element; and

disposal means for allowing the absorbent article to be secured in a disposal configuration after use, said disposal means comprising a third mechanical fastening means for securing the absorbent article in the disposal configuration, said third mechanical fastening means comprising a third fastening element mechanically engageable with said first fastening element ...

[J.A. 73]

Claim 76 thus provides for two mechanical fastening means to attach the diaper to the wearer and a third such means for securing the diaper for disposal.

The Wilson patent discloses two snap elements on fastening strips attached to the outer edges of the front and rear hip sections of the garment. The fastening strips may also include "secondary load-bearing closure means" — additional fasteners to secure the garment; they may be identical to the snaps. Wilson also states:

[D]isposal of the soiled garment upon removal from the body is easily accomplished by folding the front panel ... inwardly and

then fastening the rear pair of mating fastener members ... to one another, thus neatly bundling the garment into a closed compact package for disposal.

[JA 085 at col. 6, 11, 20-25]

In other words, Wilson does not provide a separate fastening means to be used in disposing of the diaper. Instead, it suggests that disposal of the used diaper may be "easily accomplished" by rolling it up and employing the same fasteners used to attach the diaper to the wearer to form "a closed compact package for disposal."

In holding that the invention claim 76 covers was anticipated by Wilson, the Board did not hold that Wilson set forth a third fastening means. Instead, it found that Wilson anticipated claim 76 "under principles of inherency." [J.A. 5] Applying the language of claim 76 to the operation of Wilson, it concluded that "an artisan would readily understand the disposable absorbent garment of Wilson ... as being inherently capable of [making the secondary load-bearing closure means] (third fastening element) mechanically engageable with [the other snap fasteners on the fastening strip] (first fastening element)" [J.A. 5] — i.e., using the secondary closure not with its mate, but with one of the primary snap fasteners. The Board summarily affirmed the examiner's alternative ruling that claim 76 would have been obvious in light of Wilson because "claim 76 lacks novelty." [J.A. 7]

II

Anticipation under 35 U.S.C. § 102(e) requires that "each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987).

A. The Wilson patent does not expressly include a third fastening means for disposal of the diaper, as claim 76 requires. That means is separate from and in addition to the other mechanical fastening means and performs a different function than they do. Indeed, Wilson merely suggests that the diaper may be closed for disposal by using the same fastening means that are used for initially attaching the diaper to the body.

[1] B. If the prior art reference does not expressly set forth a particular element of the claim, that reference still may anticipate if that element is "inherent" in its disclosure. To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that

astening the rear pair of mating fasteners ... to one another, thus bundling the garment into a closed ct package for disposal.

at col. 6, 11, 20-25]

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it would be so recognized by persons of ordinary skill." *Continental Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1268, 20 U.S.P.Q.2d 1746, 1749 (Fed. Cir. 1991). "Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *Id.* at 1269, 20 U.S.P.Q.2d at 1749 (quoting *In re Oelrich*, 666 F.2d 578, 581, 212 U.S.P.Q. 323, 326 (C.C.P.A. 1981).

In finding anticipation by inherency, the Board ignored the foregoing critical principles. The Board made no attempt to show that the fastening mechanisms of Wilson that were used to attach the diaper to the wearer also "necessarily" disclosed the third separate fastening mechanism of claim 76 used to close the diaper for disposal, or that an artisan of ordinary skill would so recognize. It cited no extrinsic evidence so indicating.

[2] Instead, the Board ruled that one of the fastening means for attaching the diaper to the wearer also could operate as a third fastening means to close the diaper for disposal and that Wilson therefore inherently contained all the elements of claim 76. [J.A. 5] In doing so, the Board failed to recognize that the third mechanical fastening means in claim 76, used to secure the diaper for disposal, was separate from and independent of the two other mechanical means used to attach the diaper to the person. The Board's theory that these two fastening devices in Wilson were capable of being intermingled to perform the same function as the third and first fastening elements in claim 76 is insufficient to show that the latter device was inherent in Wilson. Indeed, the Board's analysis rests upon the very kind of probability or possibility — the odd use of fasteners with other than their mates — that this court has pointed out is insufficient to establish inherency.

III

The Board's entire discussion of obviousness was as follows:

The rejection of claim 76 under 35 USC §103

We sustain the rejection of claim 76 under 35 USC §103. Above, we found that claim 76 lacks novelty. Lack of novelty is the ultimate of obviousness. See *In re Fracalossi*, 681 F.2d 792, 794, 215 USPQ 569, 571 (CCPA 1982). Thus, claim 76 is appropriately rejected under 35 USC §103 as being unpatentable.

[J.A. 7]

The "lack of novelty" upon which the Board based its conclusion of obviousness, however, was its finding of anticipation. Our

rejection of that finding eliminates the sole basis of the Board's obviousness determination, which therefore cannot stand. See *In re Adams*, 364 F.2d 473, 480, 150 U.S.P.Q. 646, 651 (C.C.P.A. 1966).

In his brief the Commissioner argues:

Moreover, even if this court interprets claim 76 to require two separate fasteners to perform the closure and disposal functions, it would have been well within the knowledge of one of ordinary skill in the art to take Wilson's one fastener and make it into two separate fasteners. See [*In re Graves*, 69 F.3d [1147,] 1152, 36 USPQ2d [1697,] 1701 [(Fed. Cir. 1995)]] (When evaluating a reference, it is appropriate to consider the knowledge of a skilled artisan in combination with the teaching of the reference.). Accordingly, claim 76 would have been obvious to one of ordinary skill in the art, and the rejection should be affirmed by this Court.

[Bl.Br. 30-31]

That, of course, was not the ground on which the Board based its obviousness ruling. We decline to consider counsel's newly-minted theory as an alternative ground for upholding the agency's decision. See *In re Soni*, 54 F.3d 746, 751, 34 U.S.P.Q.2d 1684, 1688 (Fed. Cir. 1995) (citing *In re DeBlauwe*, 736 F.2d 699, 705 n.7, 222 U.S.P.Q. 191, 196 n.7 (Fed. Cir. 1984)). The Board's obviousness ruling cannot be sustained on the ground given by the Board.

CONCLUSION

The decision of the Board of Patent Appeals and Interferences affirming the examiner's rejection of claim 76 as anticipated by and obvious over the Wilson patent is

REVERSED.

Rader, J., concurring.

Robertson asserts that the prior art Wilson patent does not teach three elements of claim 76: a "third mechanical fastening means," a disposal means on the "outside surface" of the body portion, and end regions that are "in an overlapping configuration when worn." In reversing the Board, this court relies solely on the purported failure of Wilson to teach the third fastening means. Because I believe Wilson teaches such a means, but does not teach the other two limitations at issue, I concur.

In its analysis, this court assumes without discussion that the claimed "third mechanical fastening means" covers a *separate* third me-

Decided January 12, 1999

chanical fastening means. This issue is key, for if the claim does not require a separate third fastening means, but instead allows the first fastening means to also serve as the third, then the prior art Wilson patent clearly teaches that element of the claim. For two reasons, this claim does not, to my eyes, require a separate third fastening means. First, the claim does not specifically recite a *separate* third fastening means. Second, because the claim is in means-plus-function form, this court consults the specification to identify structure. The specification explicitly teaches that the first and third fastening elements can be the same so long as they are complementary, as they are in Wilson. Accordingly, I agree with the Board that Wilson teaches the claimed "third fastening element."

Wilson does not, however, teach either of the other two claim limitations at issue. As to the disposal means on the "outside surface" of the body portion, Wilson's figs. 12 and 13a-d show the disposal means on the inside of the body portion. As to the end regions that are "in an overlapping configuration when worn," Wilson explicitly teaches that the end regions should abut, not overlap, when worn. To overcome these teachings, the Board relied on the following statement in Wilson: "Further, the fastener members need not be previously mounted on a separate strip as shown then bonded . . . to the stretchable outer cover . . . Multi-component snaps are available which may be applied directly to a stretchable outer cover material . . ." Col. 7, l. 65 to col. 8, l. 3. The Board opined that applying snaps directly to the outer cover would result in both a disposal means on the "outside surface" and end regions "in an overlapping configuration when worn." Simply put, the Board has put more weight on this teaching than it can bear. It is far from clear what effect applying the snaps directly to the outer cover will have on the Wilson diaper configuration, let alone that it will result in a configuration satisfying the claim elements at issue. Accordingly, because I believe that the Board clearly erred in this interpretation of Wilson, I would reverse on this ground.

U.S. District Court
District of Massachusetts

Labrador Software Inc. v. Lycos Inc.

No. 98-12253-JLT

TRADEMARKS AND UNFAIR TRADE PRACTICES

1. Types of marks — Descriptive — Particular marks (§327.0303)

Plaintiff's marks "Labrador," "E-Retriever," "Labrador E-Retriever," "Labrador Software," and "Get Engine," used both alone and in connection with Labrador dog image for intranet products and services, are merely descriptive and not suggestive, even though it would appear that consumers would require imagination to conclude that "Labrador" refers to intranet service company, since defendant produced evidence showing that other Internet-related companies use word "retrieve" or derivative thereof, and images of Labrador dogs, in connection with their products or services, and since proliferation of marks similar to plaintiff's marks indicates that plaintiff's marks are descriptive, not suggestive.

2. Types of marks — Secondary meaning (§327.02)

Plaintiff's descriptive marks "Labrador," "E-Retriever," "Labrador E-Retriever," "Labrador Software," and "Get Engine," used both alone and in connection with Labrador dog image for intranet products and services, lack secondary meaning, and thus are not protectable, since all but one of plaintiff's uses occurred only few months before defendant's promotional use of black Labrador dog to advertise its Internet search engine, since plaintiff only used its marks to mount limited promotional campaign for upcoming product, and since fact that other Internet related companies used marks similar or identical to plaintiff's marks indicates that plaintiff's limited use did not give its marks secondary meaning.

Action by Labrador Software Inc. against Lycos Inc. for trademark infringement and dilution under federal and state law, and for unfair competition, injury to business reputation, and deceptive practices in violation of state law. On plaintiff's motion for preliminary injunction. Denied.

Victor H. Polk Jr. and Joshua M. Dalton, of Bingham, Dana & Gould, Boston, Mass., for plaintiff.

Edward F. Perlman, of Wolf, Greenfield & Sacks, Boston; Robert L. Kirby, Mark D. Robins, and Ellen M. Majdloch, of Hutchins, Wheeler & Dittmar, Boston, for defendant.